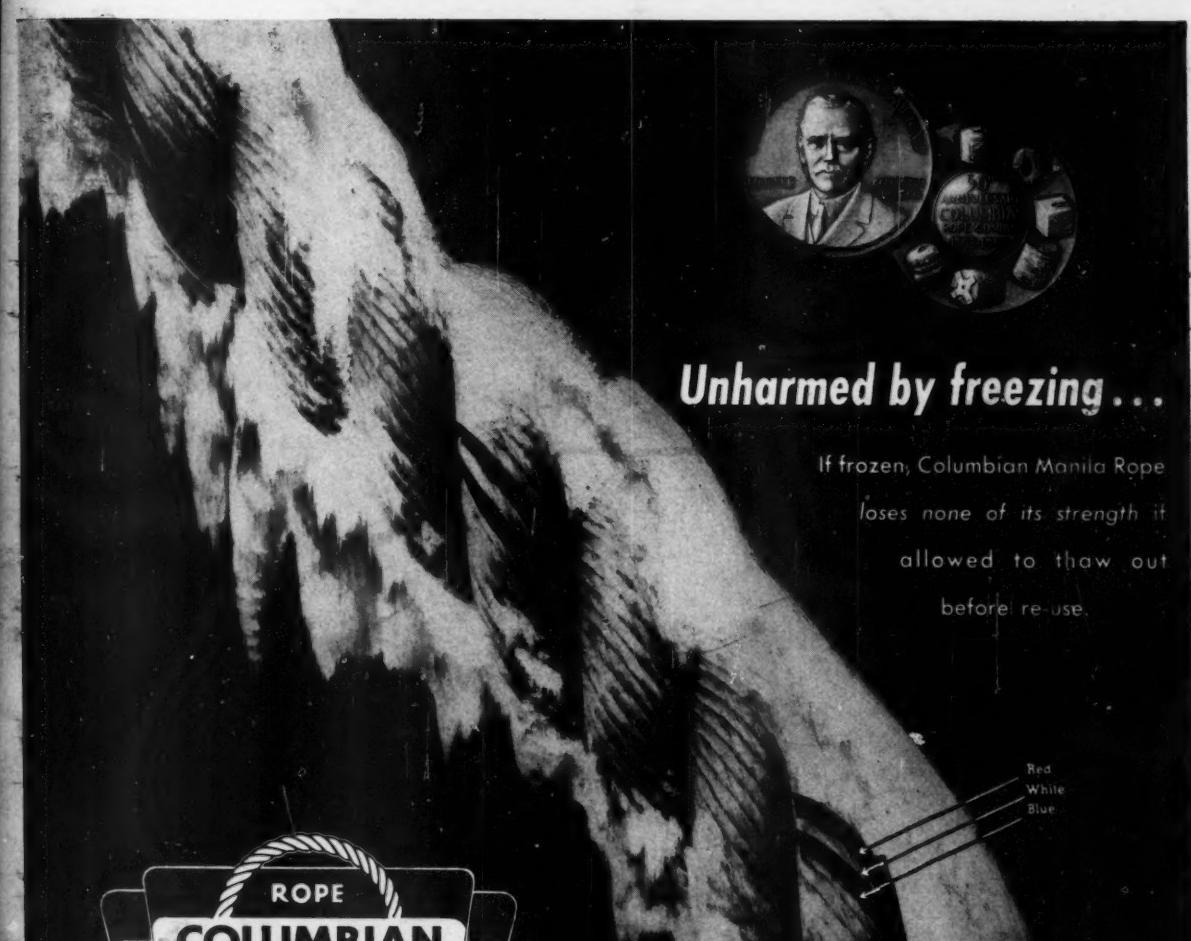


ATLANTIC FISHERMAN

JANUARY
1953

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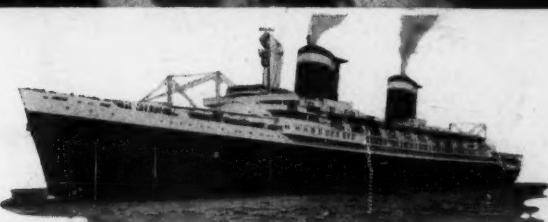
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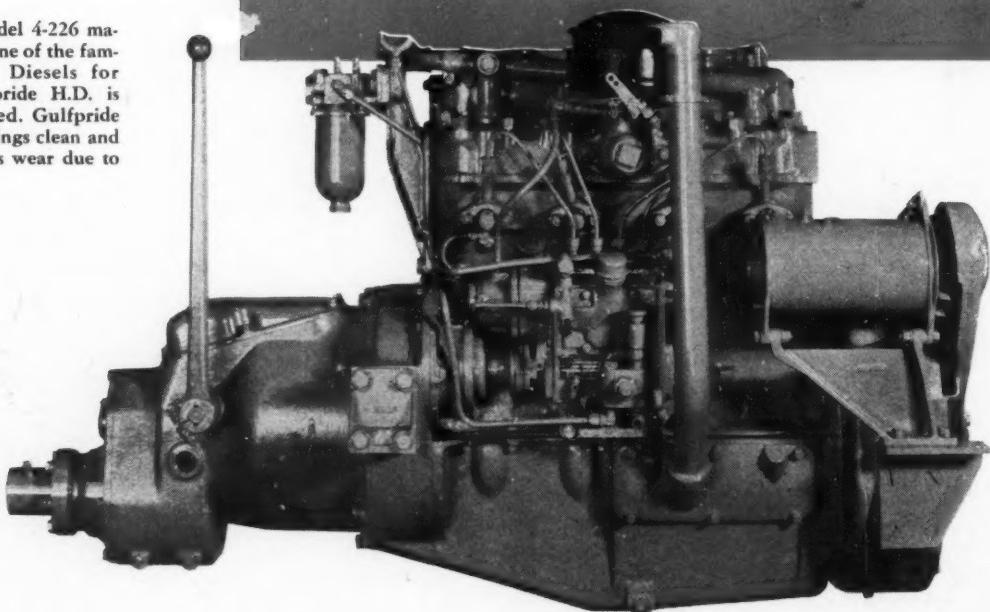
COLUMBIAN ROPE COMPANY 310-80 Genesee St., Auburn, "The Cordage City", N.Y.



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Kermath Model 4-226 marine Diesel, one of the famous marine Diesels for which Gulfpride H.D. is recommended. Gulfpride H.D. keeps rings clean and free, prevents wear due to corrosion.



Gulfpride H. D. (High Detergency), the world's finest oil for high-speed marine Diesels, insures greater dependability and lower maintenance costs.

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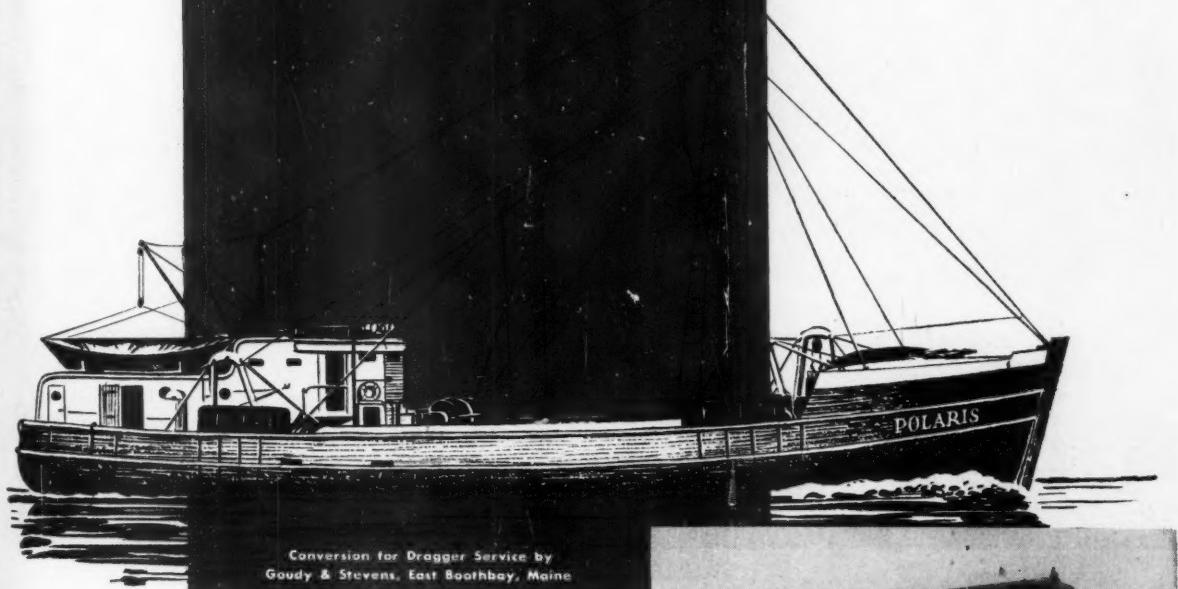
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*For sulphur content above 0.4% Gulf Super Duty Motor Oil is recommended for some engines.



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MENHADEN VESSEL
DRAGGER**

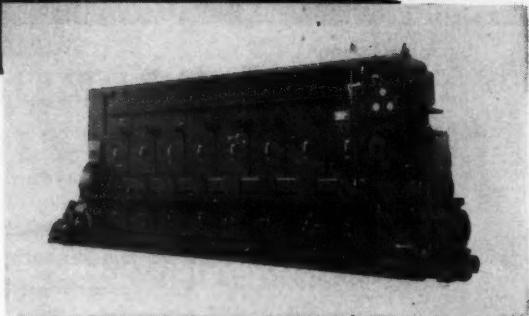


Conversion for Dragger Service by
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that's a typical
SUPERIOR DIESEL
service record

Proudly bearing her new name, and powered by a 400 h. p. Superior Diesel which carried her through war and peacetime duty, the dragger Polaris has been fitted for service out of Portland, Maine, for her new owner Blue Sea Fisheries, Inc.

This record of service is typical of precision-built Superior and Atlas Marine Diesels because they're constructed to standards fishermen have been specifying since they started buying these dependable engines over a quarter century ago.



There's a 4-cycle Superior or Atlas Marine Diesel designed for efficient operation in almost any commercial fishing service. The Superior Model 60 is an example of the precise workmanship, and advanced engineering you'll find in all Superior and Atlas Diesels.

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Editorial

Progress in Predicting Supply of Fish

Canada's fisheries scientists hope soon to be able to tell the commercial fishermen well in advance whether fishing will be good in any given year and where the best catches may be found. By studying changes in climate and fisheries, they are attempting to predict future trends and in certain cases they have had real success. Such prediction is of considerable economic importance since much of the instability which has characterized the fishing industry in the past has been attributed to the uncertainties of catches.

Progress made to date was reported early this month by Dr. W. R. Martin, a senior biologist of the Fisheries Research Board of Canada, in a paper presented at a meeting of the Committee on Biological Investigations.

As an example of long-term forecasting, based on climatic changes, Dr. Martin cited the Digby scallop fishery. The present increase in abundance and catch of scallops off Digby, N. S., was forecast by the Fisheries Research Board on the basis of knowledge of temperature of the water when those scallops were spawned.

Outstanding forecasts have been made by Danish authorities as a result of investigations in the cod fishery of the Northwest Atlantic, off Greenland, Dr. Martin said.

During the past hundred years the climate of the North Atlantic has been changing. Temperatures have increased, precipitation has decreased and for 25 years now the changes have greatly affected the fisheries of these northern waters. Rising temperatures brought an enormous increase in the abundance of cod off Greenland.

Back in the 1840's cod were abundant off Greenland but a period of cod scarcity followed from 1850 to 1914. By 1930 an important fishery again developed and it has continued to increase with vessels from nine countries including Canada now fishing in Greenland waters. A reversed climate trend could wipe out this fishery and it is therefore important to the industry to forecast future trends.

Recent Danish investigations have shown that Greenland cod production is related to bottom temperatures just after spawning. On the basis of this relationship, they can now forecast the abundance some ten years in advance of the fishery which depends on cod of a ten-year average age. Good year classes have been so predicted and no downward trend in the Greenland fishery can be foreseen.

Temperature is not the only climatic factor affecting fish abundance. Rainfall and the direction of prevailing winds are also known to be related to abundance and to catches.

Dr. Martin's observations should be of considerable interest to United States fishermen, who often have speculated on the reasons for variations in the supply of fish. The fact that the availability of certain species fluctuates in definite cycles is generally recognized. During the past century some varieties have virtually vanished at one time or another, only to reappear again, frequently in greater abundance than before.

A lack of fish is frequently attributed to the destructiveness of fishing gear or insufficient protection of spawning grounds, and these factors are important. However, it is apparent from Dr. Martin's report that the forces of nature also must be reckoned with.

While predictions of catches in this country have been limited thus far, the successful work that the U. S. Fish & Wildlife Service has performed in predicting the landings of haddock from Georges Bank is an indication of what can be accomplished. The Service should expand its biological research program so that similar predictions can be made for other fisheries. Such information can be of great economic importance to industry in gearing its operations to the anticipated supply of fish.

ATLANTIC FISHERMAN

REGISTERED U. S. PATENT OFFICE

Serving the Commercial Fishing Industry on
Atlantic Coast, Gulf of Mexico, Great Lakes

VOL. XXXIII JANUARY 1953 NO. 12

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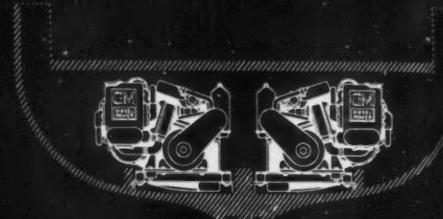
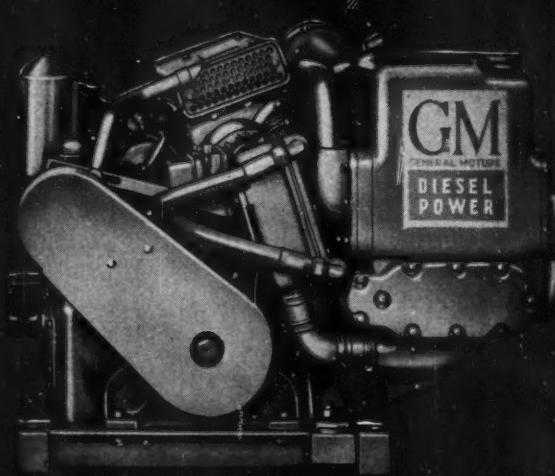
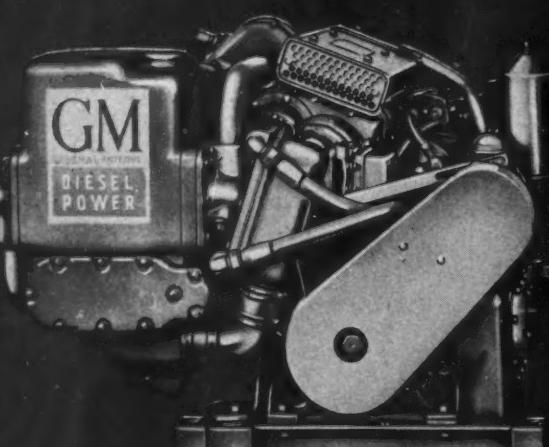
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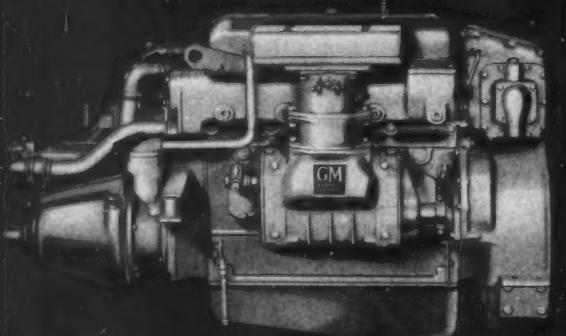
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NEW 4-71 INCLINED DIESEL

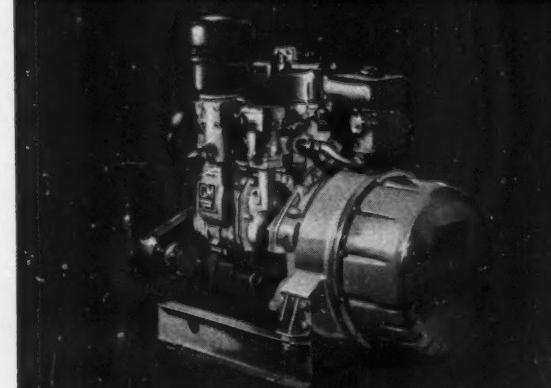


NEW 4-51 MARINE DIESEL



4-CYLINDER PROPULSION UNIT—87 H.P. @ 3000 R.P.M. Over-all length, with direct drive and reverse gear, 49½ inches. Over-all height, 31 inches. Total weight with complete equipment and gear, 1400 lbs. Here is Diesel power in its lightest, most compact form—engineered and built to deliver years of dependable, low-cost service in smaller work and pleasure boats.

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2-CYLINDER PERMANENT MAGNET GENERATOR SET—AC 60-cycle. Over-all length, 37½ inches. Total weight, 1200 lbs. Simplest, most compact Diesel unit of its capacity ever built. Driven by a 2-cylinder model of the new "51" Diesel, the generator has no bearings, exciter, commutator, brushes, slip rings, or costly regulating equipment.

THREE NEW GM MARINE DIESELS FOR SMALLER BOATS

Detroit Diesel proudly introduces three great new GM Marine Diesel engines that bring Diesel safety, economy and dependability to a wider range of work and pleasure boats

The new 4-71 inclined engine packs extra power in a space-saving, weight-saving version of the famed GM Series 71 Marine Diesel that has become the standard of boatowners everywhere for efficient, economical Diesel power.

Height of the new inclined 4-71 has been reduced 9½ inches by tilting the block and head 70° from the vertical. And its weight has been reduced 500 pounds through extensive use of aluminum.

Now . . . a smaller Diesel

The new 4-51 propulsion unit is a smaller, lighter, high-speed, two-cycle Diesel that compares in size with gasoline engines of comparable power and speed, yet provides the Diesel's recognized advantage of doing more work on fewer gallons of safer, lower-cost fuel.

The amazing compactness of this new "51" engine has been achieved through new efficiency in engine breathing that develops both power and speed with a minimum of moving parts—*saving space and weight without sacrificing ruggedness*. Loop scavenging eliminates valves and valve mechanisms. A unique pneumatic governor has no rotating parts to wear or get out of adjustment. The oil pump is driven directly by the crankshaft, eliminating gear or chain drives.

A 2-cylinder model of this sensational new "51" engine drives a new 12½ KW permanent magnet generator. The set is so simple in design it requires no attention or

maintenance other than normal servicing of the engine. This compact new generator set—only 37 inches long—makes safe, low-cost electrical power possible even in small boats.

Extra safety—dependability—economy

Like all GM Marine Diesels, these rugged new engines give you the extra safety of less volatile fuel. They start at the push of a button on fuel oil alone. They burn only about half as many gallons of fuel as gasoline engines of comparable power. They cost less to maintain and are far more dependable than spark-ignition engines.

Yes, a whole new group of boatowners can now enjoy the speed, safety and smoothness *plus* the well-known economy of GM Diesel power. We invite you to inspect these great new General Motors Marine Diesel developments at the National Motor Boat Show. Write us or see your nearby GM Marine Diesel distributor for complete specifications.

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- *Resists dirt and marine organisms*

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IN ADDITION — NYLOCK Nylon's special BONDED process . . .

- prevents knot slippage . . . gives the nets less stretch
- strengthens the net and lengthens its life
- prevents discoloring
- makes the nets much easier to handle, since they absorb less water



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- prevents mildew and rotting
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ADAMS NET & TWINE CO., 701 N. 2nd St., St. Louis, Mo.

THE FISH NET & TWINE CO., 310 Bergen Ave., Jersey City, N. J.

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* U. S. PATENT NO. 2590586

Sounding-Lead

Estimated 1952 catch of fish and shellfish in United States and Alaska declined slightly in both quantity and value from that of 1951. 1952 catch is estimated to have been 4.3 billion lbs., valued at \$335 million to fishermen. This was approximately 100 million lbs. and \$10 million less than during previous year.

Decline in catch was due to smaller landings of California pilchard, Alaska herring, salmon, and ocean perch. Production of pilchard is lowest it has been since it first became major fishery. Decreases in these four important fisheries were only partially offset by increased landings of menhaden and Maine herring. Catch of menhaden (1.3 billion lbs.) was highest ever made.

The 1952 pack of canned fish is expected to be slightly less than last year's total of 800 million lbs. Decreased production of canned California sardines and salmon was nearly offset by increased packs of Maine sardines, Pacific mackerel, and jack mackerel, and record packs of tuna and anchovies. Record pack of tuna was due in large measure to increased imports of frozen tuna which were used for canning, as domestic catch of tuna was about same as in 1951 and considerably less than in 1950.

Cold storage holdings of fish and shellfish in United States on January 1 totalled 195,654,000 lbs., compared with 168,792,000 on January 1, 1952. Frozen shellfish holdings of 24,574,000 showed a decrease of 11 million lbs., while salt-water fish increased 35 million to show a total of 156,578,000 the first of this year. Total amount of fish and shellfish frozen during month of December, 1952 was 12,000,000 lbs., a 2 million-pound reduction from same month in 1951.

A comparison of holdings of certain species on January 1 of this year with same date in 1952 showed a five-fold increase in cod fillets, double the amount of haddock fillets, and a 50% gain in pollock. Ocean perch, which had largest individual total of any species, dropped slightly to 19 million lbs. Shellfish items remained at about same level of a year ago, with exception of shrimp which fell from 27,000,000 to 15,000,000 lbs.

Unsettled markets for fishery products during first quarter of 1953 are predicted in quarterly outlook report issued by Fish and Wildlife Service. Heavy supplies of frozen fishery products are forecast for January-March period, but catches of fish and shellfish will reach their low point for year during this quarter. These heavy supplies of edible fishery products are expected to create an unsettled market despite favorable demand situation.

Report predicts strong market for croaker and mackerel; active market for shad; and firm or fairly firm market for smelt, red snapper, sea trout, salted and canned herring, canned mackerel, and mild-cured salmon. Steady or fairly steady market is anticipated for fresh and frozen salmon and canned salmon, canned tuna and sardines.

Firm or fairly firm markets are forecast for lobsters, oysters, and canned oysters, and steady or fairly steady markets for clams, scallops, crabs, canned crab meat, spiny lobster tails, shrimp and canned shrimp.

Cold-storage stocks are at record levels this year, exceeding previous record by nearly one-fifth. These stocks will be heavily drawn upon during the quarter, about half of which is in Lent.

Among fishery by-products, steady market for fish meal is anticipated, dull market for fish oils, and weak market for fish liver oils.

In comparison with same quarter of 1952, lower level of exports of fishery products is foreseen in 1953, while imports of fishery products are expected to continue at very high rate.

School for fishermen at Howth County, Dublin, has two-hour course each week for teaching about care and

maintenance of fishing equipment. This course, first of its kind in Ireland, is run by Dublin Vocational Education Committee with cooperation of Irish Sea Fisheries Board, Irish Department of Education and the fishermen's own organization.

Courses include lectures on echo meter, radio equipment and engine maintenance. Later there will be lessons in navigation and net mending.

Oyster seeding experiments at Ladysmith, British Columbia, have made possible revival of a \$500,000 oyster industry in southern British Columbia waters, according to provincial Department of Fisheries. Experiments at department's laboratories for shell fish research indicate that soon B. C. will be self-sustaining in providing its own oyster seed.

A few years ago industry faced extinction with dying out of Olympic oyster species, a fate forestalled by importations of larger Japanese oysters for propagation in Boundary Bay and inland gulf waters up to Seymour Narrows.

Now that seeding process has been perfected British Columbia will be able to develop its own industry and within two years is expected to be exporting oyster seed to United States waters where self-propagation has not succeeded.

Trawlers furnished Germany on charter basis (under authority of Foreign Aid Appropriation Bill of 1949) were returned to United States Army control on December 5. It has been determined that German fishing industry has reached position whereby further use of these trawlers is no longer required.

Depth indicator device which will show depth of floating trawl within one meter (3.3 feet) is being developed in Sweden. Upon completion, it is slated for testing by Government research vessel.

A one-boat floating trawl has been developed by a Norwegian and demonstrated before Ocean Research Institute which, reportedly, was enthused over results of test. Trawl stays open without otter boards, can be operated by 50 hp. boat, and is cheaper than drift gill nets, according to inventor, who is now seeking a patent on his device.

British Government grants for building and equipping fishing vessels will be provided in bill to be introduced before new Parliament. Original plan for such grants was announced in House of Commons in July, 1952.

As this project was considered an essential one by Whitefish Authority in its first annual report, it is expected that action will not be long delayed. However, should orders for new fishing vessels be forthcoming from foreign sources, particularly those in position to assist dollar-export program, delay may be experienced through lack of shipyard facilities.

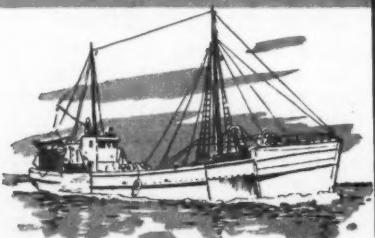
Although deep-sea or "distant water" trawlers will be excluded from scheme of financial assistance, it is probable that smaller vessels that will be built will incorporate many of improved features of design and equipment found in larger vessels. Particular attention will likely be paid to mechanization of tasks incidental to fishing and comfort of crew, since efforts will be made to attract men to these smaller boats which always suffer in competing with larger vessels for fishermen.

A plan for British Government to build fishing trawlers for lease to private fishing firms was under discussion by national executive committee of Labor Party at conference held in November. Cost of building modern fishing vessels is now so high that private enterprise cannot afford to re-equip industry, and since up-to-date trawlers would be necessary for national defense in wartime, Government must now build them. Also, fishing industry would be in better position to keep down price of fish if it was not burdened with capital cost of building new vessels.

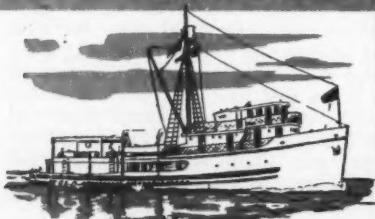
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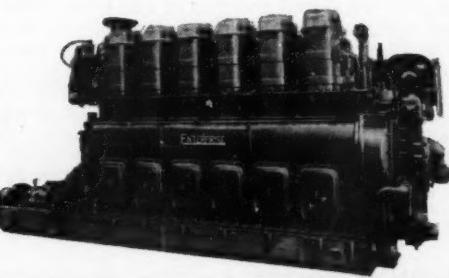
DEPENDABLE DIESELS

Enterprise 4-cycle marine diesels are built in 3, 4, 6 and 8 cylinder models, normally aspirated and turbocharged, from 68 to 1974 HP.



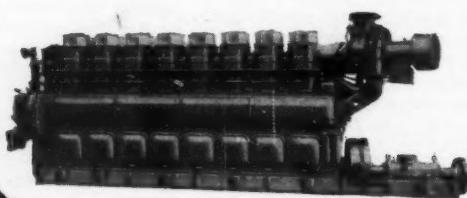
Model DMM-36
(with reverse reduction gear)

Enterprise M Series Diesels are built in 3, 4 and 6 cylinder models, 8" bore x 10" stroke. Turbocharging is available on 6 cylinder engine, as shown at left. Ratings in this series range from 68-400 HP at 450-800 RPM.



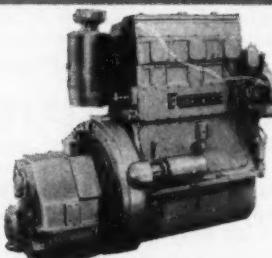
Model DMG-36

Series G Diesels, in 6 and 8 cylinders, furnish powerful, heavy-duty propulsion in a wide variety of marine services. Designed with 12" bore x 15" stroke, this series is rated 273-1388 HP at 250-600 RPM. Turbocharging available on all models.



Model DMQ-38

Largest in the Enterprise line, Series Q Diesels are built in 6 and 8 cylinder models, 16" bore x 20" stroke, normally aspirated and turbocharged. Conservatively rated 647-2056 HP at 250-375 RPM.



Model DMM-3

Compact, with a low weight to HP ratio, the Enterprise DMM-3 shown here offers exceptional performance for main propulsion in small craft or for AC or DC electric service where required. DMM-3 is rated at 68-130 HP at 450-800 RPM. KW rating: 45 to 80 in the DSM-3.

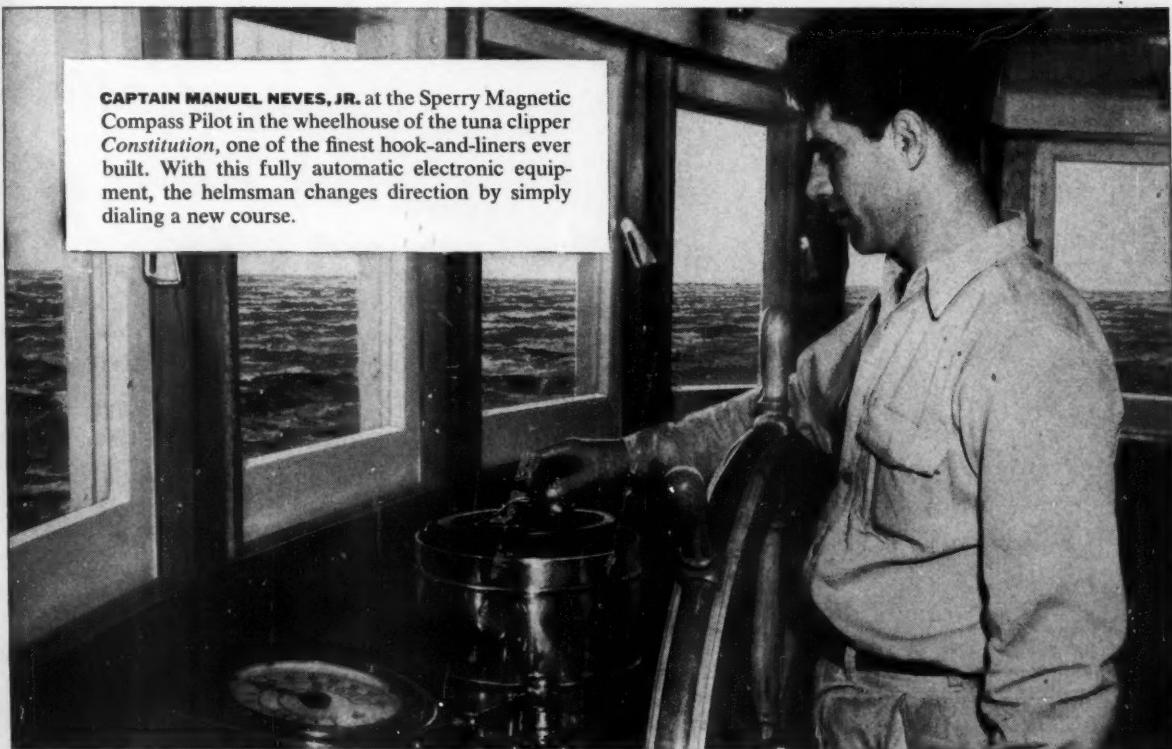


Article Number One of the **CONSTITUTION**

AMERICA'S GREAT 1952 CLIPPER



CAPTAIN MANUEL NEVES, JR. at the Sperry Magnetic Compass Pilot in the wheelhouse of the tuna clipper *Constitution*, one of the finest hook-and-liners ever built. With this fully automatic electronic equipment, the helmsman changes direction by simply dialing a new course.



"Of all the navigational aids to profitable fishing incorporated in the *Constitution*, none is more important to us than the Sperry Magnetic Compass Pilot. I'm recommending it to all my friends," says Mr. Joe S.

Rogers, builder and managing owner of the *Constitution*, one of the truly great vessels in tuna clipper history.

Today owners of all types of fishing craft—both new and modernized vessels—are specifying the Sperry Magnetic Compass Pilot for economy and profit. Sperry automatic steering gets a vessel to the fishing grounds and back with a minimum

expenditure of time, fuel, and manpower—because it follows a *prescribed course under all sea conditions*.

At the fishing grounds the Sperry Magnetic Compass Pilot is equally valuable. Heading changes are swiftly and easily made, and held automatically. A portable remote controller provides full rudder control outside the wheelhouse. More men are released for fishing while the catch is

on, and the skipper can give his personal attention to important fishing operations. This results in bigger hauls and greater profits in a shorter time.

Backed by Sperry's extensive and dependable service, the Magnetic Compass Pilot can be supplied with either an electric steering engine or a hydraulic ram. Our nearest district office will be glad to give you detailed information.

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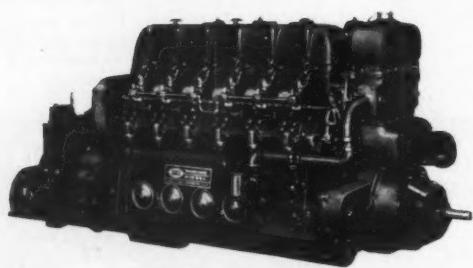


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(2-CYCLE)



*Can your diesels
match this
torque curve?*



P&H Diesel Engines are built in 1, 2, 3, 4 and 6-cylinder models — up to 145 h.p.

This is the torque curve for the P&H Model 687-C Diesel Engine. Note how the torque characteristics are sustained throughout its entire horsepower range.

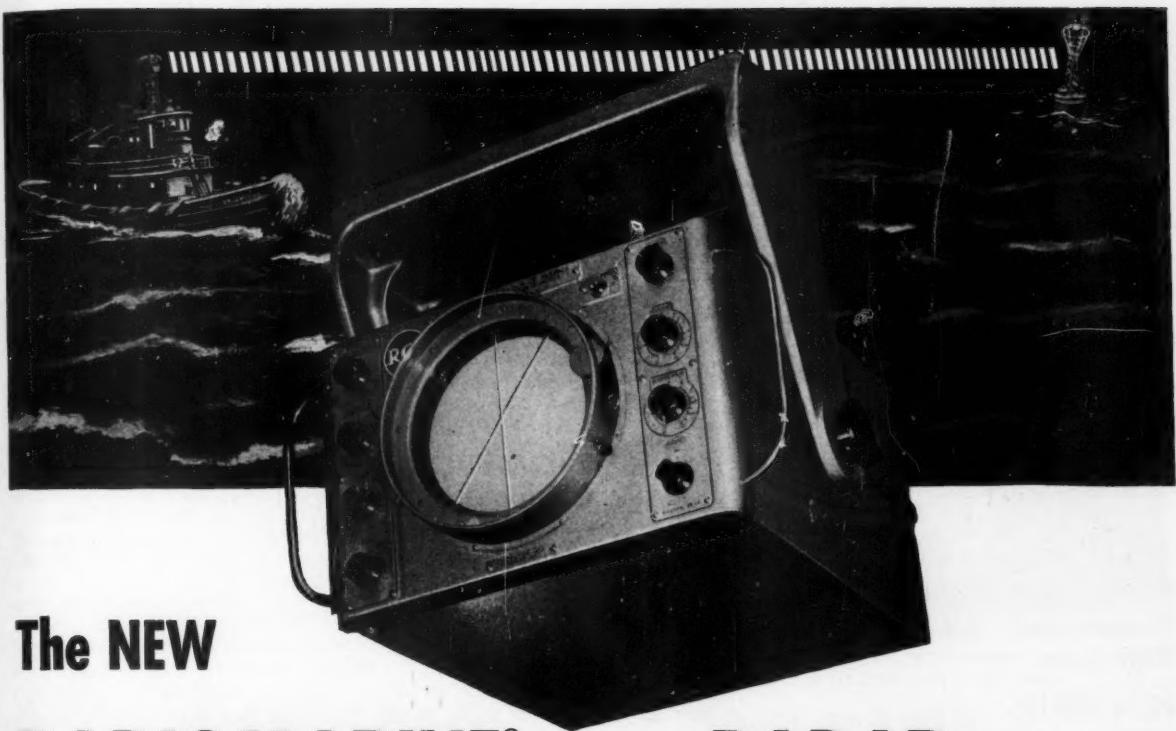
That means steady, responsive power at all speeds — greater lugging "ability" for those toughest jobs. It's the kind of unfaltering performance that assures more profits in any service, constant or intermittent.

Steady torque for steady work is just another outstanding feature of P&H Diesel Engines — America's most advanced line. Ask your P&H Diesel representative for the full story. Or write for literature.

P&H DIESEL DIVISION
HARNISCHFEGER CORPORATION
CRYSTAL LAKE, ILLINOIS

the **P&H** *Line*





The NEW

RADIOMARINE® 3.2 cm RADAR . . .

for work boats, fishing craft and small vessels

Now, mariners aboard small craft also can enjoy the advantages of radar. This new, low-cost Radiomarine Model CR-103 offers all the advantages of modern radar. Use it for piloting . . . for position finding . . . as an anti-collision aid . . . for detecting storms.

Despite its small size, it has a 30-kilowatt transmitter. Operating on a wave length of 3.2-centimeters, it

provides dependable and superior service.

Engineered and constructed to fit the small space limitations of tugs, harbor craft, trawlers, fishing craft, ferries and yachts, the CR-103 has these outstanding features:

Clear images on a 7-inch scope. Operating ranges of 1, 3, 8 and 20 miles, with a close-in range of 75 yards from the antenna.

50-inch diameter, low wind resistance antenna, weighs only 150 lbs.

Operates from 24, 32, 115, 230 volts D. C. or 115/230 volts, 60 cycles.

Backed by Radiomarine's world-wide Service.

Radiomarine CR-103 Radar will enable small vessels to operate on schedule, regardless of weather, in harbor, at sea or inland waters. Investigate its possibilities for safety and economy for your craft. Write for complete information.



Mounted from the overhead



Mounted on Transmitter/Receiver Cabinet



Mounted on a table or shelf

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Lathrop

Three generations of seafaring men have chosen
Lathrop ENGINES



Three generations of seafaring men have chosen

Lathrop ENGINES

individually assembled by true craftsmen
to assure exceptionally fine performance
and long life — yet priced competitively.

**Engine Specifications for
Pleasure Boats and
Work Boats**

**20 to 200 HP.
Gasoline & Diesel**

Model	HP.	R.P.M.	Cyl.	Displ.	Wt.
The LH Models					
LH-4	45	2800	4	133	440
LH-Master	70	2500	4	214	795
LH-6	64	2200	6	282	876
LH-Atom	90	3000	6	282	876
LH-Deluxe	120	3000	6	320	916
LH-Super	132	3200	6	339	936

The MYSTIC Models

Mystic 125	130	1800	6	585	1700
Mystic 175	175	1535	6	1013	2510

The ENGINEERS' Models

Engineers' 60	60	875	4	665	2100
Engineers' 75	75	915	4	792	2290
Engineers' 115	118	1000	6	1188	2950

The STANDARD Models

Standard 30	30	660	3	463	1450
Standard 40	45	710	4	618	1750

The DIESEL Models

D-50	50	800	4	665	3000
D-60	60	900	4	665	3000
D-80	80	800	6	998	4200
D-90	90	900	6	998	4200
D-100	100	1000	6	998	4100
DH-200	187	1600	6	935	5100

WRITE US ABOUT YOUR BOAT

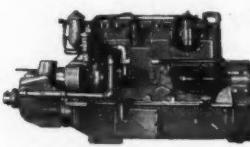
We'll send you promptly our illustrated catalog and any other information you'd like. Or, call us at the factory — Mystic, Conn. 5-2619



Look for DEPENDABILITY first, when buying your engine.

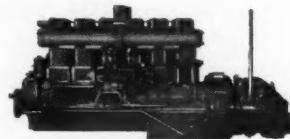
The individual attention each engine receives during manufacture is the key to the Lathrop reputation for dependability. We have no mass production. The Lathrop engine you buy has been assembled by craftsmen who have been with us for years. The pride they have in their work pays off when you are on the water and your engine is helping to put more dollars in your pocket.

Be sure to look at a Lathrop. You'll be glad you did, just as thousands of skippers have over the past 56 years.



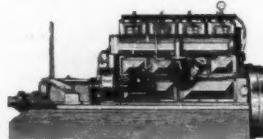
THE LH-SUPER

A light-weight, low-cost, high speed model. Now available with choice of hydraulic or manual control of reverse gears. (As are all 6-cylinder LH-Models.)



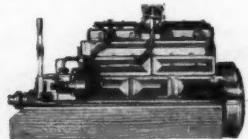
THE D-100 DIESEL

An up-to-the-minute design, built to operate very economically day in and day out for years. Delivers 100 HP. at 1000 R.P.M. Many extra features as standard equipment.



The ENGINEERS and STANDARD models

Medium and slow-speed engines for heavy duty. 30 to 118 HP. Built solidly in every part for ruggedness and long life.



THE MYSTIC 125

A medium speed, 6-cylinder engine noted for saving dollars on maintenance, lack of vibration and ability to withstand hard use long after other engines would have worn out.

Shrimp Explorations of the "Antillas"

C. B. Carlson* Describes Trips to Central America
And Red Shrimp Research in Upper Gulf of Mexico

UNDER a cooperative agreement between the Gibbs Corporation of Jacksonville, Fla. and the Fish & Wildlife Service, the *Antillas* has been searching for new shrimp resources, primarily in areas which could be exploited by the existing class of shrimp trawlers. The exploratory work started early in April, 1952, off Florida and Georgia and about a month was devoted to searching for shrimp and favorable bottom at depths beyond the range of the existing fishery. Two trips were made to Central America, one during May and June and the second during July. During September and October, the primary effort was devoted to the deepwater red shrimp of the upper Gulf of Mexico, following which the *Antillas* began working on the Bahama Banks.

A total of 78 sets were made in the offshore area from Brunswick, Ga. to Fort Pierce, Fla. at depths from 5 to 130 fathoms. The drags in shallow water were primarily made to assure proper functioning of the gear and for gear development work. While the work was done in the off season for white shrimp, quantities varying from a few to several pounds, and on one occasion up to 160 lbs., were taken during random drags on known grounds having mud bottom. Outside of these areas no commercial species of shrimp were found and only small quantities of fish, most of which are not market species, were taken.

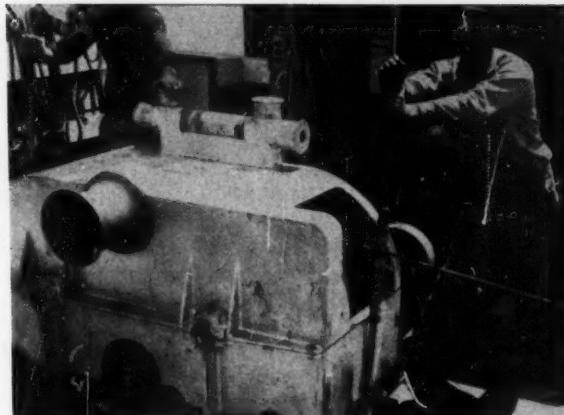
With the exception of the known fishing areas, no mud bottom was found until reaching depths of 80 to 100 fathoms. The bottom in the intervening area as shown by soundings was primarily various mixtures of sand and shell. A patch of mud bottom was found about southeast of Cape Canaveral and was explored from depths of 80 to 130 fathoms. While somewhat larger quantities of fish were found in this area than on the sand bottom, the catches were not of commercial magnitude. A small patch of bottom having some mud mixed with sand was found near the 20 fathom curve about south-southeast from Cape Canaveral, but no shrimp were taken.

As the 100 fathom curve was approached, the effect of the Gulf Stream became quite pronounced and the surface velocity approached or exceeded trawling speeds. Under these conditions it was almost impossible to maneuver the vessel and hold a predetermined course or depth. Since no extensive areas of mud bottom were found outside the known fishery or in areas where otter trawls could be satisfactorily operated, there is considerable question if any substantial but unexploited new shrimp resources exist in offshore waters of northern Florida and southern Georgia. However, the work was performed only during one month of the year and explorations at other seasons might yield more optimistic results.

Explorations off Honduras and Nicaragua

A preliminary exploration for shrimp off the coasts of Honduras and Nicaragua was made during the last 4 days in May. A total of 64 tows comprised of 57 with "try nets" and 7 with "balloon trawls" were made off a stretch of coast line about 220 miles long between Cabo de Honduras, Honduras and Gorda Point, Nicaragua. In July the area was resurveyed and a total of 39 tows were made mostly with a try net.

The bottom along the north coast of Honduras from Guatemala to Cabo Honduras appeared to be generally hazardous for trawling according to readings on the automatic depth meter. From Cabo Honduras to Miskito Channel, Nicaragua, a distance of over 200 miles, mud



Hauling trawl warp on shrimp research vessel "Antillas". Horns and roller on distant side of winch are fair lead and stops for forward gypsy. Try net drum is in background.

bottom predominates and is generally suitable for otter trawling between depths of 4 and 20 fathoms.

Rough patches were frequently found at depths in excess of 20 to 25 fathoms. Also, the rivers and lagoons in the area probably have deposited portions of trees near their mouths which might be hazardous to gear if fishing were conducted inside the 3 mile limit. The land adjoining the area of good bottom is low and large rivers and lagoons are common. These geographical features should be conducive to populations of shrimp. Unfortunately, harbors are few and numerous reefs lay outside the mud bottom which could be a menace to navigation.

Grooved Shrimp Found

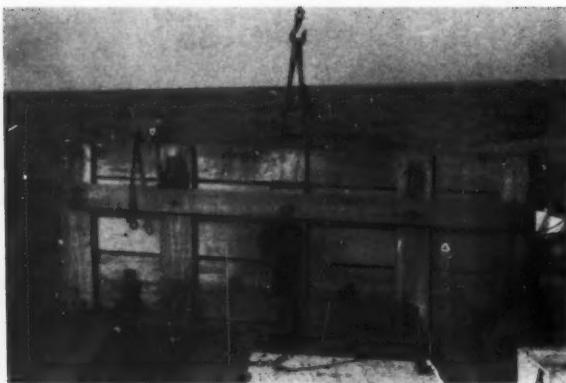
During May, grooved shrimp were found over much of the area surveyed at depths varying from 8 to 20 fathoms, but no concentrations in any way comparable to the Campeche or Tortugas fisheries were indicated. The catch in try nets during a 15-minute tow generally varied from one to ten shrimp. Two drags at night with a balloon net in areas where the try net yielded 4 grooved shrimp resulted in catches of 42 lbs., about half of which was in the range of 15 to 30 count and the other half in the range of 30 to 60 count.

During July the drags were made at distances from 4 to 60 miles offshore and in depth ranges of 4 to 35 fathoms. Again grooved shrimp were found to be widely scattered chiefly between distances of 5 to 15 miles offshore, with the best catches being made between depths of 14 and 19 fathoms.

The similarity of the results obtained on grooved shrimp during both May and July indicates a wide dispersion, but in view of the size of the area a rather large number of individuals were present on the grounds. The results when considered in the light of experience elsewhere indicate that the schooling of grooved shrimp off Honduras and Nicaragua if it occurs is a seasonal condition. Since so little is known about the area two other considerations may be in order. First, with the limited time available the schooling areas could have been missed or, second, the area prospected may be a feeding or reserve area for some, at present, undiscovered schooling ground. In our limited work, only a very small portion of the bank off Nicaragua and Honduras could be sampled.

During May no white shrimp were found at depths in excess of 4 fathoms, but there were good indications that

* Fishery engineer, Fish & Wildlife Service, University of Miami Marine Laboratory, Coral Gables, Fla. This paper was presented by Mr. Carlson at the recent Gulf and Caribbean Fisheries Institute meeting at Miami Beach, Fla.



Method of modifying standard shrimp otter board to fish depths down to 300 fathoms and on very soft bottom.

substantial quantities might be found within the 3 mile limit off Nicaragua. During July some white shrimp were found at depths of 6 and 8 fathoms, and several commercial vessels fishing near shore made substantial catches. Firsthand reports from commercial trawlers who made trips in August and September to Nicaragua for white shrimp indicated a seasonal variation in abundance, for the catches were progressively lower. This apparent decline in the catch might well indicate the end of one season, with the expectation that a new one might soon start. The size of the white shrimp was quite acceptable to the trade, being mostly in the range of 20 to 30 count per pound.

Test Fishing on Red Shrimp Grounds

During 1950 and 1951 the Fish & Wildlife Service research vessel *Oregon* found red shrimp *Hymenopenaeus robustus* at depths between 180 and 350 fathoms, with the main concentration appearing to be between 200 and 250 fathoms. The *Antillas* spent part of September and October in what appeared to be the most favorable portion of the fishery discovered by the *Oregon* for the purpose of test fishing with large shrimp trawls to determine the commercial possibilities of the species.

The *Oregon's* best catches were southeastward of the Mississippi Delta and were made with special 40' trawls. Their trials with commercial gear met with less encouraging results, for the soft mud bogged down the larger nets causing 6 gear failures out of 8 drags.

One of the first problems requiring attention was the modification of conventional shrimp gear to permit fishing at depths down to 300 fathoms and devising gear that would withstand the strains involved. During initial trials standard equipment and hook-ups were used, with the exception of floats capable of withstanding the pressure at a depth of 400 fathoms and of a weight of 140 lbs. added to the back side of each otter board. The doors were crossed while setting on the first 3 trials, but changing the attachment of the trawl from the trailing end to the rear side of the doors overcame this difficulty.

When it became obvious that mudding down would be a serious problem, the runners of the doors were increased to a width of 8" for greater bearing surface. Mud ropes were also attached to the foot ropes of the trawls. Eventually all the trawls fitted with mud ropes were lost, and it was found that the $\frac{1}{2}$ " diameter manila clad wire rope combination used for foot rope was of inadequate strength for the deepwater work.

A new trawl made of 24 thread twine instead of the conventional 18 thread twine and having a 6 x 19 ply plow steel cable for a foot rope proved much superior to conventional trawls for the deepwater work over soft mud bottom. Before hanging the trawl the wire foot rope was served with $\frac{1}{8}$ " diameter rope. Either this type of foot rope had superior advantages on soft bottom or it was used on firmer bottom for the trawl did not mud down, although the otter boards showed evidence of

the bottom being equally soft. On a total of 33 drags with balloon and flat trawls 5 resulted in completely destroyed or severely damaged nets. On 2 other sets considerable damage to the net resulted. A total of 17 successful sets were made consecutively with the revised trawl.

The *Oregon* and the *Antillas* worked cooperatively on one day to more rapidly determine the depth range in which the red shrimp might be found. They were found to be most abundant between 195 and 220 fathoms. In the depth range of 220 to 240 fathoms the red shrimp were generally larger, but the quantity taken rapidly decreased with increasing depth. Shallower than 195 fathoms the red shrimp population was replaced by a cocktail-sized pink shrimp, *Penaeopsis megalops*, having an excellent flavor.

Red Shrimp Found on Soft Mud Bottom

The bottom on which the red shrimp were found consists of a narrow strip only several miles wide along the edge of the continental shelf. The bottom is very soft mud with occasional "snags" which may be rocky outcroppings, and frequent changes in heading were required to hold a constant depth. Difficult fishing conditions would constitute a further drawback in taking red shrimp commercially. The succession of northerly winds which interrupted the operations of the *Antillas* during most of October were considered unusual, but on the 200 fathom curve trawlers should expect more unfavorable fishing weather than on the inshore grounds.

The best catches of about a basket (80 lbs.) of heads on red shrimp were made on the steepest part of the edge which lies directly south of the area between Pascagoula, Miss. and Mobile, Ala. The location of the best catches suggests that the red shrimp were not necessarily more abundant along the steep slope, but were more concentrated within the narrow confines of their depth range, for both to the eastward and westward where lesser slopes prevail within the range poor catches resulted.

An analysis of the problems involved in successfully exploiting the red shrimp fishery leads to divided speculations. The species has a very pleasing flavor and should eventually command a premium price, but at first it would probably have to be sold at a competitive price with similar size counts of the commercially established species. At least one hour's time would be required to set and haul the trawl, and the hazards to gear are relatively high. Furthermore, a few random drags for brown shrimp at depths between 40 and 70 fathoms indicated that the commercial fishery for this species might be extended to depths of 60 fathoms and that better returns might be expected than from red shrimp. The brown shrimp taken in deep water were mostly in the 10 to 15 count range, while the red shrimp could be divided into 2 groups about half in the range of 15 to 25 count (females) and half in the 30 to 35 count range.

Mesh Restrictions for Georges Bank

Haddock Nets to Go into Effect

Regulations prohibiting the taking of haddock in the Georges Bank area by trawl net or nets having a diagonally stretched mesh-size less than $4\frac{1}{2}$ " when wet, will be adopted by the Secretary of the Interior about March 15. Possession or transportation on any vessel at any one time of both a trawl net or nets, parts of nets or netting, the use of which is prohibited by the regulations, and haddock in amounts in excess of 5,000 lbs. or 10 percent of all fish on board a vessel, whichever is larger, is prohibited.

The new rules, which were formulated by the International Commission for the Northwest Atlantic Fisheries, will be effective during the calendar year 1953 only. They are aimed at permitting an adequate escapement of immature haddock.



Left: Typical Digby scallop boat. Right: Sorting scallops from other material taken in drag.

Digby Is Center of Canadian Scallop Industry

Catch Is Taken by Modern Vessels Built Especially for Scallop Dragging, which Operate Far Out in Bay of Fundy

IN the past 32 years the scallop fishery centering on Digby, Nova Scotia, has grown from practically nothing to an industry worth half a million dollars a year to Canada. Scallops have been taken in various Atlantic coastal regions ever since the country was settled, and large amounts were canned in New Brunswick for export from 1895 to 1901. This business dwindled away, however, apparently because of high United States tariffs on canned goods which went into effect after the turn of the century.

The Digby fishery was the first major commercial development in the Bay of Fundy to use modern vessels built especially for scallop dragging, according to the Department of Fisheries at Ottawa. Similar boats are used to a lesser extent by Prince Edward Island fishermen, and some scallops are still taken in Mahone Bay on the south shore of Nova Scotia. However, the dragging operations there are carried out by individual fishermen using motor boats and small drags towed and hauled by hand. Most of their catch is sold locally in Lunenburg County.

Large catches were made in newly-discovered scallop beds off the southeast coast of Prince Edward Island in 1946 and 1947 by large dragger using modified Digby scalloping rigs, but an unusual mass mortality swept this area, known as the Boughton Island ground, greatly reducing the catches.

In 1949, a Digby scallop dragger, under charter to the Fisheries Research Board's Biological Station at St. Andrews, N. B., discovered another new bed with good commercial possibilities in Northumberland Strait, near Pictou Island.

Digby and the Bay of Fundy, however, are the names most closely associated with Canadian scallops. The fishery was built up during the 1920's, largely with high-quality scallops taken from the

shallow floor of Annapolis Basin which, for the time being, is no longer productive. The druggers now go far out in the Bay of Fundy. Few of the men of the scallop fleet actually live in Digby; most of them have their homes elsewhere along the Fundy shore and are known as Bay Shore men. They sleep aboard when in port. Digby's great value as a home for the fleet lies in its deepwater harbor, in which boats need not be stranded by the high Fundy tides.

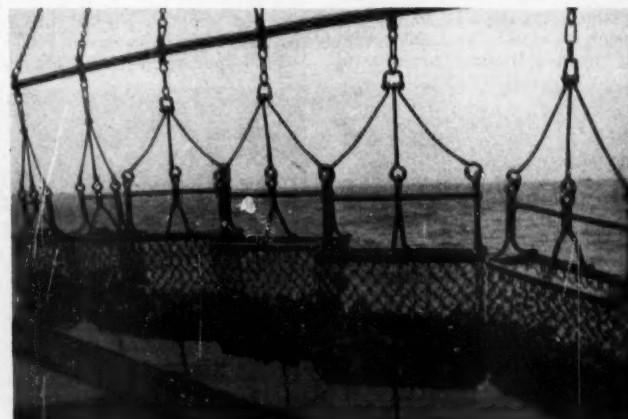
The season for all beds within seven miles of shore is from October 1 to April 30, and until recently scalloping was considered strictly a Winter fishing effort. New methods of freezing, together with fast transportation, have made the scallop a year-round dish, and more and more vessels are fishing the offshore grounds outside the seven-mile limit during the Summertime, when generally calmer weather permits more fishing time than would the Winter months. Even on the inshore grounds within the seven-mile line the average number of fishing days, out of a 212-day season, is only 58.

The Bay of Fundy scallop is one of the finest of edible bivalve mollusks. Known in the United States as the sea scallop or giant scallop, it is one of about 300 species, but all have the same general characteristics and have been known and fished in all seas for centuries.

Scallop Catch Varies

The scallop catch varies greatly, not only from month to month but from year to year, and charts of comparative landings show a fairly regular series of high and low points. From its beginnings in 1921, the fishery increased to its first peak in 1927. It reached a record high in 1937 and exceptionally good catches were made in 1941 and 1945.

Investigations of the Research Board indicate (Continued on page 48)



Loaded "Digby Rig" ready to be swung aboard.

New Equipment and Supplies for Fishing Boats

Many Products Displayed at National Motor Boat Show

THE 43rd annual National Motor Boat Show—the biggest in history—was held at New York's Grand Central Palace January 9 through 17. The four floors of the Palace were filled to the gunwales with the products of a record-breaking number of 248 exhibitors. The Historical Marine Museum was back again this year for an encore with a brand new display of nautical memorabilia. Held under the sponsorship of the National Association of Engine and Boat Manufacturers, of which George W. Codrington is president, the 1953 Boat Show featured much equipment for use on fishing boats; brief descriptions of some of these products follow:

Gulf Has Gasoline Fuel System Conditioner

Gulf Oil Corporation's newest product, Gulf SDL (for Solvent, Drier, Lubricant), the all-year gasoline fuel system conditioner, was displayed and explained. It is designed as a fuel system anti-freeze, rust inhibitor, solvent, gum-preventer, tune-up agent and upper cylinder and valve lubricant—all in one.

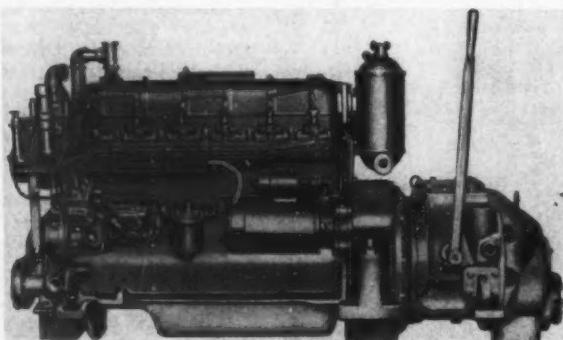
A Crankcase Service Section featured Gulf's two mechanical oil changers—the Choldun P-79 marine unit and the C. & B. hand operated unit. A cut-away chart of a marine engine was featured to demonstrate the merits of periodic oil changes, and a new booklet, "Why Change Oil in Marine Engines?", was distributed. Other pamphlets available were: "How to Keep Your Engine Clean and Reduce Wear" and "Trouble Shooting Your Outboard".

A Marine Fuel Section, which featured a gasoline and Diesel fuel pump with micronic filters, pointed up the importance of using "filtered fuel". The Gulf booth also included a Commercial Fishing Section with appropriate displays devoted to this industry, and a Cruisegide Section showing the Company's extensive coverage of U. S. coastal areas, with a display of the Gulf Cruisegide Harbor Books.

Red Wing Offers New Marine Diesel

The Red Wing Motor Co. exhibited its line of Red Wing "Thorobred" marine engines, including the new D6-80 marine Diesel. The D6-80 is a six-cylinder, 4-cycle, overhead valve engine with bore of 4" and stroke of 4", or 300 cubic inch piston displacement. This new model develops 80 hp. at approximately 2000 rpm. for continuous service. It weighs about 1500 lbs., and is available in direct drive and with various ratios of reduction gears. Twin screw pairs will be available also, in opposite rotation.

Red Wing's line for 1953 includes gasoline models from 10 hp. to 90 hp. and marine Diesel types of 30 to 200 hp. The gasoline models on exhibit included the lightweight 4-cylinder, 18 hp. "Meteor"; the 4-cylinder "Arrowhead



New Red Wing D6-80 marine Diesel, which develops 80 hp. at 2000 rpm.

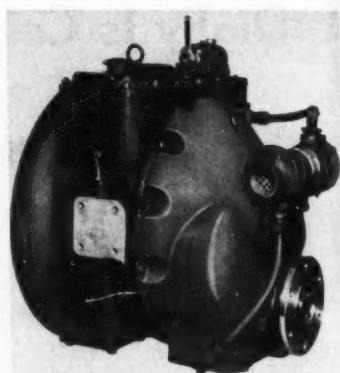
"Junior", rated 20-40 hp.; and the 4-cylinder "Arrowhead", 25-45 hp. The 6-cylinder, 58-90 hp. "Hiawatha Special" also was shown. In the Diesel line the D4-30, a 4-cylinder model weighing 825 lbs., was exhibited.

Snow-Nabstedt Shows Marine Transmissions

The Snow-Nabstedt Gear Corp. display included marine transmissions for gasoline and Diesel engines up to 1000 hp. The company showed models that are hydraulically, manually and air-operated. These gears are supplied with engine or anti-engine rotation, and a wide selection of reduction gear ratios is available.

Among other valuable features, S-N gears have cone clutches of special design which assure long, dependable clutch life. The clutch is of the wet type and allows adequate lubrication of all wearing surfaces and bearings. Heavy spring pressure forces the clutch members apart thus guaranteeing a positive neutral.

The gearing is designed to transmit 100% of engine speed and power in reverse. The herringbone reduction gearing is straddle-mounted on frictionless bearings. It is contained in its own housing and designed with ample reserve capacity to take care of the most severe conditions.



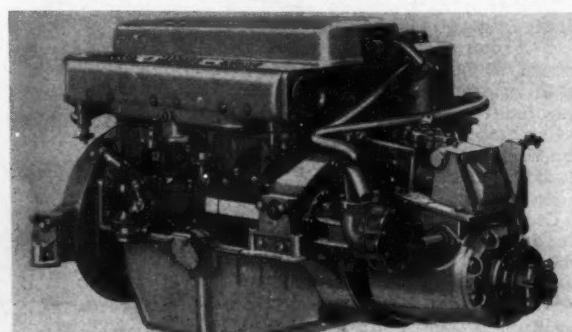
Snow-Nabstedt hydraulic transmission and reduction gear.

Chrysler Engines Being Made in New Plant

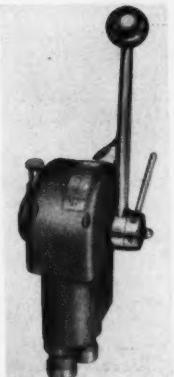
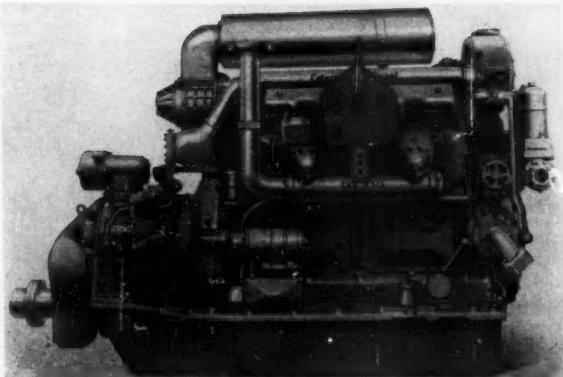
Chrysler Marine Division is offering the same basic engine lines this year; however, improved manufacturing facilities in the new Trenton, Mich. plant have resulted in better quality control. The new plant, with its million square feet of manufacturing space, has allowed greatly expanded research, testing and developmental facilities.

In the six-cylinder field, seven basic lines comprise the Chrysler Marine engine offering, including the Ace, 87 hp. at 2800 rpm.; Crown, 104 hp. at 2800 rpm.; Ace Special, 105 hp. at 3600 rpm.; Crown Special, 125 hp. at 3600 rpm.; and Majestic, 160 hp. at 3000 rpm. The two eight-cylinder engines are the Royal, 135 hp. at 2800 rpm.; and the Royal Special, 165 hp. at 3600 rpm.

Two special developments added to the line last year



The 6-cylinder Chrysler Ace Special, rated 105 hp. at 3600 rpm.



Left, new Auto-Lift hood on the Evinrude Super Fastwin; Center, the Caterpillar D375 marine Diesel, which delivers 270 hp. at 1000-1200 rpm.; Right, new Model "55" Columbian Bronze hydraulic control.

include radio shielding for better ship-to-shore communications, and complete splashproof electrical system and waterproof spark plugs. Other special features include a hydraulic control which produces smooth effortless gear shifting.

Straight-drive, reduction gear or Vee-drive options are available on all engines. Reduction gear ratios of 1.5, 2, 2.5, 3 and 4 to 1 and Vee-drive ratios of 1.5 and 2:1 are standard equipment. All reduction gears can be easily assembled in four different positions, for adaptation to any hull. A front power take-off, optional as extra equipment, is available for all types of auxiliary operation.

Evinrude Introduces Super Fastwin

Evinrude Motors introduced a new "middleweight" outboard engine—the Super Fastwin—an alternate firing, twin cylinder model which develops 15 hp. at 4,000 rpm. Engine noise from this new motor has been reduced up to 20 percent as the result of a twin chambered, acoustically tuned silencer, which effectively mutes carburetor intake noise.

For turn-of-the-wrist operating ease, the Super Fastwin has Roto-Matic speed control with ignition and carburetion synchronized in a single control on the steering handle grip. In addition, a gearshift with neutral, forward and reverse, makes the Super Fastwin a highly maneuverable motor. These controls have been engineered to receive Evinrude's new Simplex remote control system, which can be attached to the motor in less than 30 seconds.

Evinrude engineers have simplified cover removal and replacement by developing the Auto-Lift hood for the Super Fastwin. By unsnapping two clasps, the port side hood opens to a vertical position and stays open by itself. The complete cover assembly may be lifted by removing two screws on the starboard hood.

Power leader in Evinrude's 1953 line is the 25 hp. Big Twin. This model has been made easier to carry by the addition of a new front carrying handle, which also serves as a mount for the new Simplex control steering cable connector.

Columbian Bronze Shows New Engine Control

Columbian Bronze Corp. displayed its new Model "55" hydraulic control which gives smooth, easy, single lever operation of both clutch and throttle on engines with hydraulic reverse gears. Also shown were Columbian propellers and marine accessories.

The new Columbian control eliminates the danger of throwing the clutch before closing the throttle. The throttle can be held in any position by the oversize brake and a simple clutch disconnect knob allows use of the entire throttle range without engaging the clutch.

Installation is easy and economical; the small hydraulic lines can be passed through watertight bulkheads and around obstacles without fear of annoying backlash associated with mechanical cables.

Caterpillar Presents New Diesel Engine

Caterpillar Tractor Co. presented its new six-cylinder Model D326 Diesel marine engine, which delivers 118 hp., continuous output, at 1600 rpm. and 170 hp., intermittent output, at 2000 rpm. The D326 extends the Caterpillar line of marine engines to a total of 12, with a horsepower range from 48 to 500, hp. intermittent. Cat electric sets range in capacity from 20 to 315 kw.

The newest Caterpillar marine engine has 5½" bore and 6" stroke, and is equipped with Snow-Nabstdt hydraulically actuated reverse and reduction gears, which are available in 2:1, 3:1 and 4:4:1 ratios in either right or left hand motion. Starting equipment is optional, with gasoline, compressed air or electric starters.

Largest in the line of Caterpillar marine Diesels is the 12-cylinder full Diesel V-12 Model D397. The four-stroke cycle, valve-in-head engine, equipped with Falk reverse and reduction gear, delivers 400 brake horsepower at 1200 rpm.

The Caterpillar Model D375 marine Diesel is a full Diesel V-8, also with four-stroke cycle and valve-in-head arrangement, delivering 270 hp. in continuous sustained service at 1000-1200 rpm. Air operated Snow-Nabstdt reverse and reduction gears, with ratios of 2:1, 3:1 or 4:1, are part of the basic package.

The Caterpillar D337 marine Diesel is rated 170 hp. at 1600 rpm. continuous output. This six-cylinder, four-stroke cycle, valve-in-head engine is available with Snow-Nabstdt marine gears in ratios of 2:1, 3:1 and 4:4:1.

Bowers Shows Entire Marine Battery Line

Bowers Battery & Spark Plug Co. showed their entire line of marine batteries. Specifically designed for every marine service, Bowers batteries are available in 6, 12, 32 and 120 volts in a complete range of sizes up to 1020 ampere hour capacity.

The Bowers Company now, after many years of intensive



Bowers Type MLL marine batteries.

sive research, produces its own exclusive Ball Mill Oxide. This special oxide, which is the power producing element in the battery, permits increased capacity to be built into a more compact battery—a space saver that is important on every type of boat. Only the most advanced methods of plate insulation are used, producing long battery life.

Socony-Vacuum Features Marine Services

Socony-Vacuum Oil Co. showed its specialized line of Mobil Marine Products, and featured a large color reproduction of *Slo Mo Shun IV* and a replica of the Gold Cup. Coastwise and inland cruising guides, as well as the Mail Port Directory listing Socony-Vacuum mail ports throughout the country, were made available. A new 32-page booklet, "Your Outboard", on the care and operation of outboard engines, was distributed.

Jabsco Introduces New Raw Water Pump

Jabsco Pump Co. introduced its new Model 2570 raw water pump, which has been developed and engineered for the Detroit Diesel Engine Division of General Motors Corp. After exhaustive laboratory and field testing, the new Jabsco unit has been adopted as standard equipment for the General Motors 6-71 Diesel, and will be sold and distributed exclusively by General Motors.

The new pump combines all of the features applicable to Jabsco pumps—such as self-priming, one moving part, low cost maintenance, compactness, lightweight, and servicing without removing from installation.

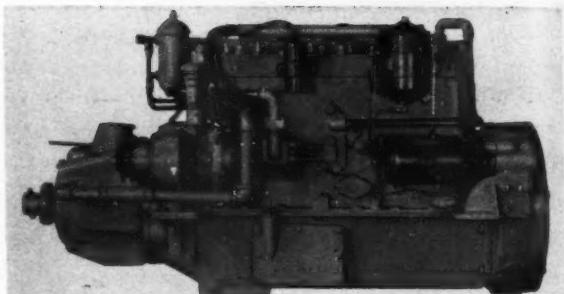
In addition, the Jabsco Model 2570 combines many individual features, such as: marine bronze construction; 1½" port size; mechanical type shaft seal with replaceable seal seat; 70 gpm. capacity at 2200 rpm.; replaceable wearplate; and direct drive, flange mounted connection.

Raytheon Displays Complete Electronic Line

A complete line of Raytheon marine electronic equipment was shown against an interesting marine background. Color, light and motion were employed to emphasize the outstanding features of various pieces of equipment.

Featured in this display were the "Fathometer" echo depth sounders, including the "Cadet" for small fishing craft, the "Fathometer Jr." indicating and recording models and the new "Fathometer" models designed for large vessels.

A complete line of marine radiotelephones, including 10, 25, 35 and 100-watt models, also were shown. One of the most intriguing features of the display was an ingenious radar "simulator" which showed actual scope pictures on a Raytheon "Mariners Pathfinder" 16" presentation radar indicator. This is the first 16" presentation ever developed for radar use. The indicator also was equipped with the new Raytheon "Reflection Plotter", which enables the navigator to plot the speed and course of all ships within danger range, directly on the changing picture of the radar scope.



The lightweight, high-speed Lathrop LH-Super model with manual or hydraulic control of reverse gears. The engine develops 132 hp. at 3200 rpm.

Lathrop Engines Have Choice of Gear Control

Newest improvement in the Lathrop line is the choice of either manual or hydraulic control of reverse gears on the 6-cylinder LH-models. This series includes four models beginning with the LH-6 with 64 hp. at 2200 rpm. Then follows the LH-Atom with 90 hp. at 3000 rpm., the LH Deluxe with 120 hp. at 3000 and the LH-Super with 132 hp. at 3200 rpm. All of these models are available with reduction gears as well as V-belt drive for auxiliary equipment, extra-large generator, bilge pump, Twin Disc power take-off and 6 or 12 volt ignition.

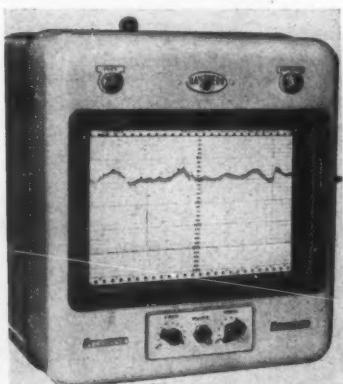
Another leader in the Lathrop line is the D-100 Diesel, which is one of six different Diesel models ranging in power from 50 to 187 hp. The D-100, with 100 hp. at 1000 rpm., is a 6-cylinder engine with a displacement of 998 cubic inches and weighing 4,100 lbs. One of the many features of the engine is a rubber impeller water pump, which is particularly valuable when salt water cools the engine or a keel cooler is used. Another feature designed to help keep this engine trouble-free is a direct fuel injection system.

Onan Exhibits New Marine Generating Plants

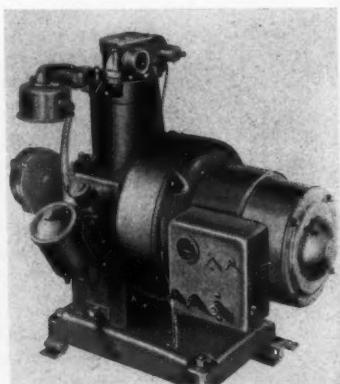
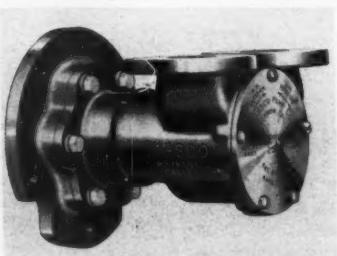
Two new marine Diesel electric generating plants were introduced by D. W. Onan & Sons, Inc. Both water-cooled, they are the 3,000-watt, single-cylinder Model 3MDSP-232E with 32-volt output for charging storage batteries, and the 5,000-watt, two-cylinder Model 5MDRP-1R which produces 115-volt, 60-cycle alternating current. All other standard voltages are available in both models.

A cut-away model of a standard, belt-driven generator, showing points of construction, also was on display. This generator could be hand-cranked by visitors to produce electric current which registered on a meter.

The two new Onan marine Diesel electric plants are designed for continuous, heavy-duty service. The engines are Onan 4-cycle Diesels with extension shafts on the front end which permit power take-off. Model 3MDSP weighs approximately 425 lbs. The two-cylinder 5MDRP models have an approximate weight of 690 lbs.



Left, Model DE-103 recording Submarine Signal Fathometer, shown by Raytheon; Center, Jabsco Model 2570 raw water pump; Right, Onan Model 3MDSP-232E marine Diesel electric generating plant.



Woolsey Has New Liquid Rubber Sealer

"Ti-Tall", a new liquid rubber sealer that is able to fill even the smallest topside and underside seams and cracks, was announced by C. A. Woolsey Paint & Color Co. This new rubber compound answers the need for a sealer that is able to reach crevices and run into seams where heavier compounds are impracticable. Easy to apply with either a brush or nozzle applicator, this new compound will dry hard and uniform overnight. It is made to last as long as the surrounding wood surfaces.

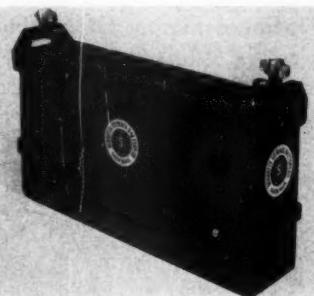
A new anti-fouling paint—a perfect hard-racing, high gloss finish that allows for brilliant contrasting colors between topside, bottom and boot top, has been introduced by Woolsey.

Surette Shows New Battery Line

A line of Type GTNS marine batteries was introduced at the Show by Surette Storage Battery Co. The new batteries replace Surette's GTS Type, and have one third greater capacity in the same space with equally as long life. They are of rugged construction with triple insulation and hard rubber containers, and the increased capacity is made possible by the use of new "Rezistox" grids.

The GTNS line has been designed to meet the present-day needs of greater electrical loads aboard ship, and has been thoroughly tested over a period of several years in both civilian and military service. The batteries are available in 325 and 440 ampere sizes at the 8-hour rate. They are made in 2, 3 and 4-cell containers.

Surette also showed its new, completely automatic marine D.C. shore converter.



Surette's Type GTNS marine battery.

Johnson Features Millionth Motor

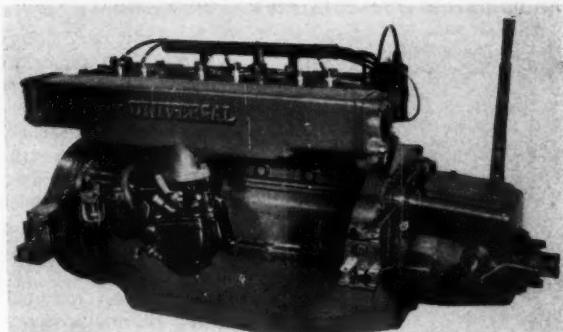
Heading an exhibition of four different Johnson outboard models was the firm's "Millionth Motor", which was given a special chrome and gold trim for the Show. Also featured was the first Johnson outboard ever sold, which was recently found still in use.

The 1953 models displayed included the Johnson Sea-Horse 5; the Sea-Horse 3, a 31 lb. lightweight unit equipped with Angle-matic Drive; the Sea-Horse 10, which has as standard equipment instant fittings for attaching Johnson's new Ship-Master remote control unit, as well as forward, neutral and reverse gear shifting; and the Johnson Sea-Horse 25, their king-size power plant. This has fully synchronized twist-grip speed control as well as remote control fittings. Basic weight is set at 98 lbs., and its 25 hp. is certified by OBC.

Universal Displays New Unimite Four

For 1953 Universal Motor Co. is offering a broadened line of 100% marine engines in a range from 8 to 145 hp. The latest addition to the line is the Unimite Four, a small, compact, four-cylinder engine, rated 65 hp. at 3400 rpm. This new engine is offered in direct and reduction drive models, with 2:1 and 3:1 reduction ratios optional. The direct drive Unimite Four measures just under 32" long and weighs only 450 lbs. Chrome nickel alloy iron is used extensively throughout its construction for resistance to corrosion. Also at 25 hp. Universal offers the Utility Four, which delivers its rated horsepower at 2500 rpm. Universal builds the Utility Four in special models for operation on fuel oil or kerosene.

The Blue Jacket Flexifour develops 45 hp. at 3800 rpm., and has built-in reversing gears. The Stevedore of the Universal four-cylinder fleet is the Super-Four,



Universal Super-Six Commodore, which is rated 145 hp. at 3200 rpm.

which is rated 50 hp. at 3000 rpm. The Super-Four can be furnished with front-end Twin Disc clutch and power take-off.

Leading the Universal sixes, which are available in direct and reduction drive models, is the Super-Six. This engine is offered in Commodore models, 145 hp. at 3200 rpm.; and Stevedore models, 130 hp. at 2800 rpm. The moderate speed Cruiser Six develops 90 hp. at 3000 rpm.; the Sea Lion Six, 110 hp. at 3400 rpm.; and the Blue Jacket Six, 60 hp. at 3500 rpm.

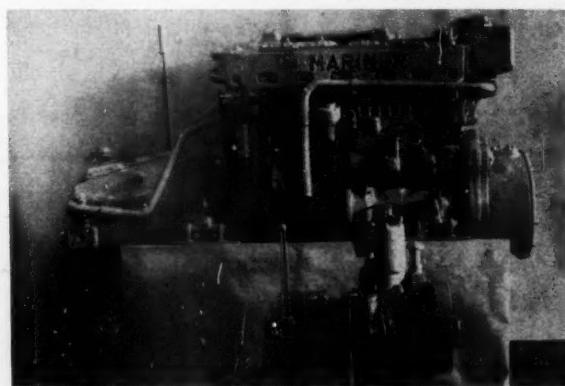
Universal produces a complete line of light and power plants designed especially for marine service. All are water cooled, with gasoline driven models ranging from 300 watts to 25 kw., and Diesel models from 2 kw. to 36 kw.

Palmer Exhibits Mariner Diesel

The smallest Palmer engine, the 6 hp. Baby Huskie, and the largest, the 140 hp. Mariner Diesel, best typify the 1952 improvements in the Palmer Company's engines. Based on the Mack Truck engine, features of the 4-cycle Palmer Mariner Diesel include four-cycle simplicity; extra long operation hours between overhauls; smooth, quiet, slow speed operation; maximum Diesel fuel economy and smokeless operation on #2 grade Diesel fuel. Its patented "Syncrovance" injection drive makes starting easier in coldest weather and idling quieter.

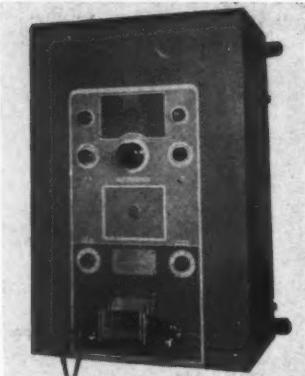
The 6-cylinder PH-75 Palmer, developing 80 hp. at 3000 rpm., makes an exceptionally fine power plant for heavy service installations such as commercial fishing boats. This is due to the fact that it uses the same clutch installed on the larger Palmer PH-120 engine. The latter, developing 125 hp. at 3000 rpm., was shown in a standard model and also as a unit equipped with all accessories such as reduction gear, power take-off, bilge pump, etc. The Palmer Model PH-45, developing 48 hp. at 3000 rpm., was displayed in a standard type.

A Palmer ZR-1 was shown, representing the heavy-duty engine line, which develop 7, 18, 30 and 40 hp. in the ZR-1, 2, 3, and 4 models.



140 hp. Palmer Mariner Diesel, with the 6 hp. Palmer Baby Huskie in the foreground.

Radiomarine Presents New Telephone



Radiomarine's new radiotelephone transmitter-receiver

only 123 lbs. Power output is approximately 85 watts.

Another attraction at the Radiomarine exhibit was the Model CR-103 small craft radar, which has the power and sensitivity to pick up objects as close as 75 yards and as distant as 20 miles.

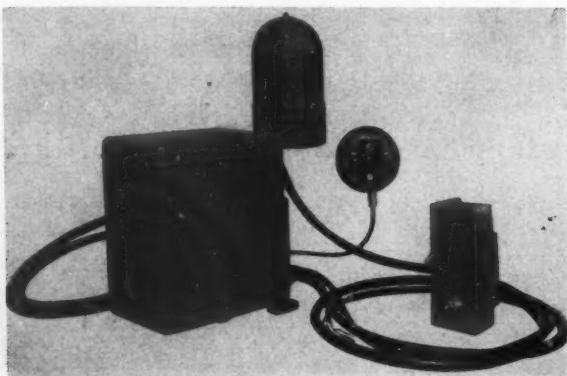
A versatile, compact 30-watt two-way radiotelephone for medium-sized boats was shown. Known as the Model ET-8037, it combines in a single cabinet a 6-channel crystal-controlled receiver and an 8-tube receiver with a built-in speaker and integral power supply. This model is available in two different versions: one operating in the 2000-3500 kilocycle range and a second with high-frequency channels for Great Lakes and inland waterway operation.

Radiomarine also displayed its powerful 75-watt, 10-channel Model ET-8012 ship-to-shore radiotelephone for the larger commercial craft, and its Model AR-8711 radio direction finder, which is especially designed for small-craft use and incorporates a 3-band receiver.

Bendix Displays Photo-Electric Pilot

Bendix introduced its Photo-Electric Pilot, which is a simple electronic device for automatically steering small vessels of all types. It is claimed that this unit will hold a vessel on any desired heading hour after hour far more accurately than the best-trained helmsman. Bendix also showed a new depth indicator and its full line of depth recorders to fit every type of operation, from 400-fathom fishing to the shallowest river and harbor work.

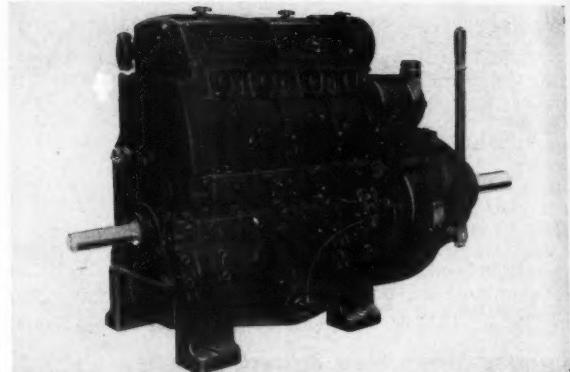
The new Bendix depth indicator, model DI-1, consists of only two components—the indicator and the transducer—and can be mounted anywhere in the ship. The indicator, with its extra large 8 $\frac{1}{4}$ " dial, can be installed on any convenient shelf or pedestal, or the dial can be separated from the control unit and installed on a bulkhead for direct viewing. A repeater dial also is available for remote installations.



Bendix Photo-Electric Pilot.

The Radiomarine Corporation of America introduced its new radiotelephone transmitter-receiver, the ET-8050-HF. One model, for the inland waterways, ranges from 2000 to 9000 kc., and the second, for high seas, ranges from 1650 to 18,000 kc.

This new, compact, eleven-channel radiotelephone features a separate power unit for 32, 115, or 230 volts d.c. or 115 volts a.c. operation. The radiotelephone is 28 $\frac{1}{2}$ " high, and weighs



Lister FR 4 four-cylinder Diesel which develops 36 hp. at 1800 rpm.

While rated at 100 fathoms, the unit will accurately measure far greater depths. The sending and receiving transducer can be installed in the bilge or on the hull. It is molded in neoprene which eliminates electrolysis and is waterproof. Standard indicators are available for 6, 12 or 32 volt systems.

National Supply Offers New Lister Diesels

Design features of the new "Freedom Range" of Lister Diesel engines have been announced by the Engine Division of The National Supply Co., which recently became the sole distributor within the Continental United States for Lister Diesels. The engines are manufactured by R. A. Lister & Co., Ltd., Dursley, Gloucestershire, England.

The new Lister Diesels, as well as a Model 35 Atlas marine Diesel—available in a range of 95 to 290 hp.—were displayed at the Show by National Supply Co. The Atlas engine has a 6 $\frac{1}{2}$ " bore and 8 $\frac{1}{4}$ " stroke.

The Lister engines, made in 1, 2, 3, 4 and 6 cylinders in a range from 8 to 54 hp., were especially designed for operation at high speeds. Each cylinder develops 9 hp. at 1800 rpm., except the single cylinder engine which develops 8 hp. at 1500 rpm. Weight of the FR engines is approximately half that of earlier Lister Diesels of the same power. The engines are totally enclosed, which provides protection for all working parts.

A standard type of wet liner, chrome-hardened with a patented Listard process, has been adopted. In this electrochemical treatment, the cylinder surfaces are permanently impregnated with chromium, resulting in a perfect bonding of chromium into the pores of the cast iron.

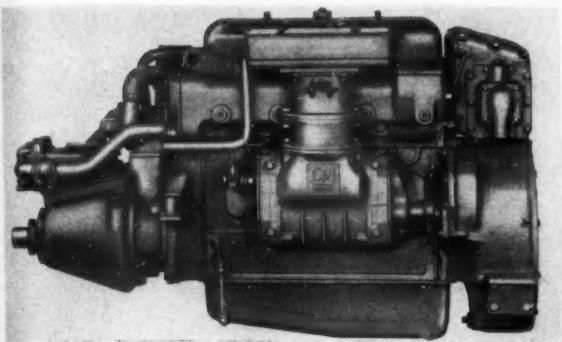
The crankshaft, connecting rods, bearings and camshaft are unusually large for engines of this size and speed. The centrifugal governor provides close speed control, maintaining the "settled" variation within 2 per cent, while a fully-automatic release limits overloading to 10 per cent.

The Lister engines, upon arrival in the United States, will be equipped with American accessories, such as starters, generators, radiators, clutches, and marine gears. Parts for the engines are stocked by the National Supply Engine Division branches and dealers.

Pettit Distributes Log Book

The Pettit Paint Co. exhibited a complete line of marine finishes and specialties, and also distributed their 36-page log book, which contains much valuable information for the boatman. In addition to spaces provided for such cruise data as anchorage place, depth of water, rpm. and course readings, the booklet also tells how to determine the true force and direction of the wind; how to identify cloud formations and what they mean; plus many navigational hints, sea and weather symbols.

A few lucky boat owners received free paint sufficient for completely painting their boats. A drawing of registration cards at the end of the Show determined the winners of complimentary Pettit Paint supplies.



New General Motors Series "51" marine Diesel, which develops 87 hp. at 3000 rpm.

General Motors Introduces Two New Diesels

Sharing the spotlight at the exhibit of the Detroit Diesel Engine Division of General Motors Corp. were a new 138 hp. "inclined" marine Diesel, a new 87 hp. marine Diesel and a new Diesel-driven generator set.

The inclined engine is an adaptation of the Division's Series "71" four-cylinder engine in which the height has been reduced $9\frac{1}{2}$ ", largely through tilting the block and head 70° from the vertical. Its weight has been reduced 500 lbs. through the extensive use of aluminum. With accessories, the engine produces its rated horsepower at 2100 rpm. using 80 mm. injectors.

The new 87 hp. model 4-51 marine Diesel was designed for use in craft of 26' and up, and develops its rated horsepower at 3000 rpm. The engine's compactness is reflected in the following dimensions: It has an overall length with direct drive and reverse gear of $49\frac{1}{4}$ "; overall height is 31", and width is $26\frac{3}{4}$ ". With direct drive and reverse gear, this 4-cylinder engine weighs approximately 1400 lbs.

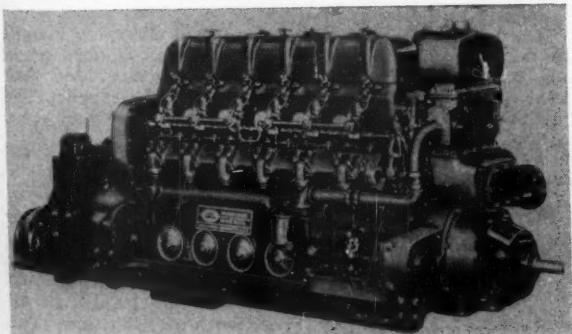
Several features of design contribute to the engine's extreme simplicity. It is a loop-scavenged engine. Exhaust valves and valve operating mechanisms are eliminated through the use of exhaust ports and intake ports in the cylinder liners. A Roots type blower provides efficient scavenging of the cylinders at all speeds.

The lubricating oil pump is of the rotor type and has a new and unique location. It is built around and is activated by the crankshaft. Thus it needs no gear or chain drive.

The new generator set is a product of both Detroit Diesel and the Delco Products Division of General Motors. It is driven by a two-cylinder model of the new "51" series engine, and the weight of the generator itself is 40% less than conventional units of the same capacity.

Harnischfeger Offers Lightweight Diesels

The 1953 line of P&H marine Diesel engines, manufactured by Harnischfeger Corp., is designed to fill the power requirements of fishing and work boats. There are 1, 2, 3, 4 and 6-cylinder models from 20 to 145 hp.



6-cylinder P&H Diesel, rated 138 hp. at 1400 rpm.

P&H Diesels feature low weight per horsepower, as the result of simpler design with fewer parts plus the use of modern lightweight corrosion-resistant alloys. Among the other notable features of P&H Diesels is a special low pressure fuel injection system.

All P&H marine Diesels are of 2-cycle design, which means there is power in every down stroke of the piston. All models are engineered around the patented P&H cylinder assembly for 100% interchangeability and maximum ease of servicing. This is an independent, fully water-jacketed assembled unit consisting of cylinder head, liner, piston and rod. Maintenance time and costs are greatly reduced by this feature, it is claimed, because the complete cylinder assembly can be replaced in only 40 minutes.

All P&H models have 4.5" bore and 5.5" stroke. Piston displacement per cylinder is 87 cubic inches. Horsepower ratings of P&H marine Diesel engines at 1400 rpm. are: 1 cyl.—20 hp.; 2 cyl.—42 hp.; 3 cyl.—68 hp.; 4 cyl.—92 hp.; 6 cyl.—138 hp. P&H also builds marine type Diesel-electric plants in capacities up to 75 kw.

The Viking, 50-watt Hudson American radiotelephone with six channels. This is one of the products in Hudson American's line of equipment for 1953, which will be the most complete and extensive in the firm's history.



Hudson American Has New Telephones

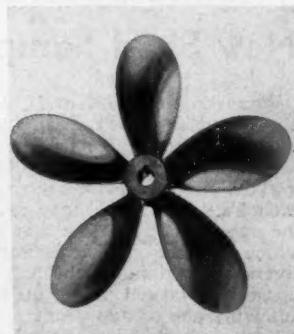
Hudson American Corp. exhibited its line of marine radiotelephone equipment. The firm's regular line consists of five marine radiotelephones ranging in power from 12 to 100 watts, one marine radio direction finder, and a complete line of waterproof, protective vinyl coverings for marine radiotelephone equipment and for ships' chomewares and fittings.

New marine radiotelephones which have been developed by Hudson American are as follows: one 20-watt set, complete with four channels and a broadcast band; one 50-watt, ten-channel set and one 100-watt, ten-channel set, each of which operates in the high frequency range up to 18,000 kilocycles.

Michigan Introduces Five-Blade Propeller

Michigan Wheel Co. has developed a new 5-blade propeller which it is claimed reduces or completely eliminates the customary vibration at the stern of a boat. These new wheels were designed for the class of boats which employ propellers of around 38" to 48" in diameter.

It tests as to boat speed running light, boat speed running under tow, and fuel consumption, the 5-blade wheel, which is (Continued on page 35)



Michigan's new 5-blade propeller.

Provincetown Has Several More Boats Convert to Scalloping

A total of 12 vessels are operating for sea scallops out of Provincetown, six druggers having converted to scalloping in November and another last month. Druggers converted in November were the *Atlanta*, *Cape Cod*, *Elmardo*, *Jennie B.*, *Judy and Tony*, and the *Victoria*. The *Florence* and *John* converted last month. Other scalloping vessels operating out of Provincetown, most of them converted some time ago, are the *Cap'n Bill*, *Paroga*, *Shirley and Roland*, *Three of Us* and the *Queen Mary*.

In addition to these, Frank Riley, local agent, said there are 31 druggers operating out of Provincetown and three line trawlers. Most of the scallopers are working the areas in the lee of the Truro and South Truro shores and along the shore to Barnstable.

Fish Houses Close Two Days Weekly

Fish houses on both wharves in Provincetown will be closed Fridays and Saturdays during the Winter, but will be open for the landing of fish on Sundays, according to Joseph Francis of Cape Cod Fisheries, Inc. The fish houses will remain open Sundays so fish can be unloaded and shipped for Monday morning's market.

Weather Post at Race Point

A U. S. Weather Bureau observation post has been established at Race Point Coast Guard Station to supply weather news and observations from this area directly to Boston. Coast Guard personnel will take the instrument readings and submit them at least twice a day to the Boston office of the Weather Bureau, including wind, pressure, precipitation, temperature, visibility and the type of weather at the moment. Observations will aid navigation in the area.

Bourne Shellfish Report

The commercial shellfish industry of Bourne during 1952 was valued at \$126,910 by Bertram S. Wright, shellfish officer. The breakdown includes a total take of 12,198 bushels of scallops valued at \$64,036 and 8,892 bushels of quahogs with a value of \$62,874. This value does not include quahogs, scallops and oysters taken from town waters by the 1,946 holders of resident shellfish permits or the 240 holders of restricted licenses.

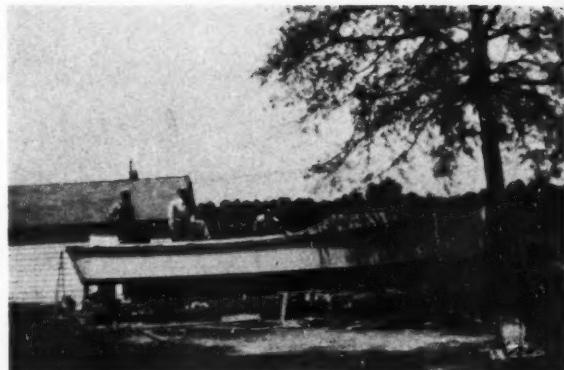
Wellfleet Wharf Completed

Completion of Wellfleet's new Town Wharf, which already has been used by many of the town's shellfishermen, was expected early last month. Some fishermen have been using the lee of the L-shaped pier to tie up, and landings of shellfish also have been made.

Virginia Laboratory Using New Shad Sampling Method

According to William H. Massmann, biologist at the Virginia Fisheries Laboratory at Gloucester Point, the amount of fish which will be available in the shad runs of 1956 and 1957 has already been determined. By checking the number of small shad which leave the rivers each Fall, the Laboratory can predict fairly accurately the number of adult fish that will return to spawn. Shad which hatched out this Spring will return to their home rivers in Virginia for the first time in four or five years. These will largely make up the catch for 1956 and the following one or two years.

Young shad were sampled in the Chickahominy, Pamunkey, Mattaponi, James and Rappahannock Rivers in September. Men from the Virginia Fisheries Labora-



The crabbing and pleasure boat owned by Conway Diggs of Bayon, Va. She is 28' x 10'8" x 2', and is powered with a 95 hp. Scripps engine, sold by C. V. Hudgins of Onemo, Va., which swings 15 x 9 propeller to give the craft a speed of 21 mph. Builder of the boat was Edgar Diggs & Son, Peary, Va.

tory used a surface trawl towed between two motor boats. This sampling method has recently been devised by Mr. Massmann, and is much more effective than was the small hand seine formerly used.

Massmann states that the York River system appears to have produced more young shad during 1952 than any other river in Virginia. About 77% of all small shad caught in his surface trawl were taken in the Pamunkey and Mattaponi Rivers.

Hard Crabs Scarce

According to reports, hard crabs have been scarce in the Lower Chesapeake. Crab dredgers, working the hibernation grounds near Cape Charles, have caught as few as four barrels of crabs a day to the boat, but the daily average has been about 10 barrels.

Prices, on the average, have been good. They started out with \$5.00 a barrel, and gradually rose to \$12. If crabs remain scarce, prices are expected to go to \$15 a barrel.

Tonging on Private Grounds

For the first time in three years, the Tangier Oyster Co. has opened its beds in Cod Harbor to tonging. The boats did extremely well the first week, taking 1200 bushels which were sold to the Crisfield market for \$3.50 a bushel.

Oyster Packer's Estate to Get \$5,000

The U. S. Court of Claims has ruled that the Government must pay \$5,000 to the estate of Virginia oyster packer Harry W. Sharpley for damages to an oyster bed resulting from pollution. Sharpley, who died in 1950, had claimed a loss of more than 5,000 bushels of oysters planted on leased ground near the Chincoteague Naval Auxiliary Air Station.

The court said evidence showed that Sharpley sought permission without success to remove his oysters when the ground was condemned in 1942. He was told that they could not be removed until the following year. The next year he found that the oysters had died and were a total loss.

Hampton Roads Area Landings

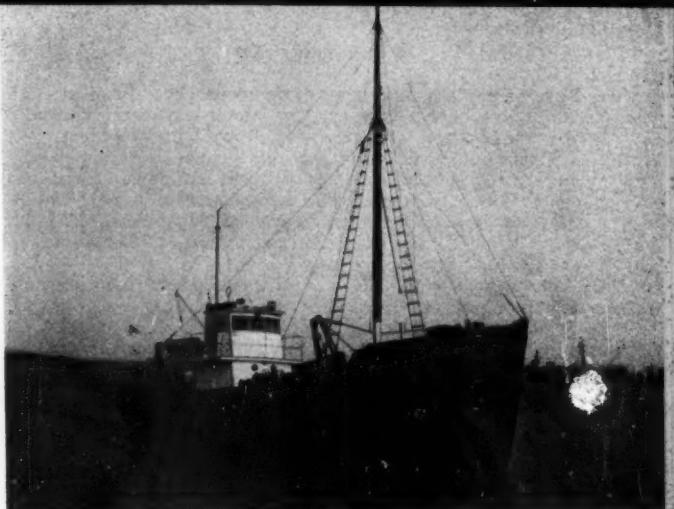
With the exception of 1,000 lbs., the entire December fish catch of 1,816,000 lbs. in the Hampton Roads area, was made by druggers. Two species—sea bass and scup—accounted for over two-thirds of the landings. At 669,000 lbs., sea bass production was the largest of all the species, followed by scup, with 614,000 lbs. The December, 1952 catch was about 100,000 lbs. heavier than that of the same month in 1951.

Conversion of Navy Vessel To Dragger "John J. Nagle" Makes Ideal Redfisherman

AN outstanding example of a Navy APC coastal transport vessel converted to a dragger is found in the 103' *John J. Nagle*, which recently was placed in operation by F. J. O'Hara & Sons, Inc. at Rockland, Me. Named in honor of a late well-known Boston Fish Pier commission dealer, the vessel is used for redfishing under command of Capt. Percy Spurling, with crew of six.

The conversion plans and specifications were prepared by Eldredge-McInnis, Inc., Boston naval architects, and the work was handled by the O'Hara firm at its Portland dock under the direction of the Company's marine superintendent, John F. (Jack) Sullivan, assisted by Halvor (Andy) Anderson, port engineer. The hull work and painting were done at the Story Shipyard in South Portland.

Registered dimensions of the dragger show a length of 98.9', beam of 21.5' and draft of 10'. She was built by Herreshoff Manufacturing Co., Bristol, Rhode Island, in 1943 from designs of John G. Alden and Eldredge-McInnis in collaboration. She has 6 x 5 double sawn oak frames and 3" Oregon fir planking. A portion of the

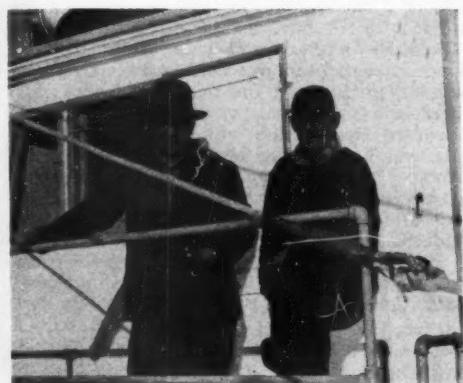


The 103' dragger "John J. Nagle" of Rockland, Me.

planking was renewed and dragging sheathing was installed fore and aft on both sides. International paint was used on the topsides, and Henderson & Johnson Copper-Clad on the bottom.

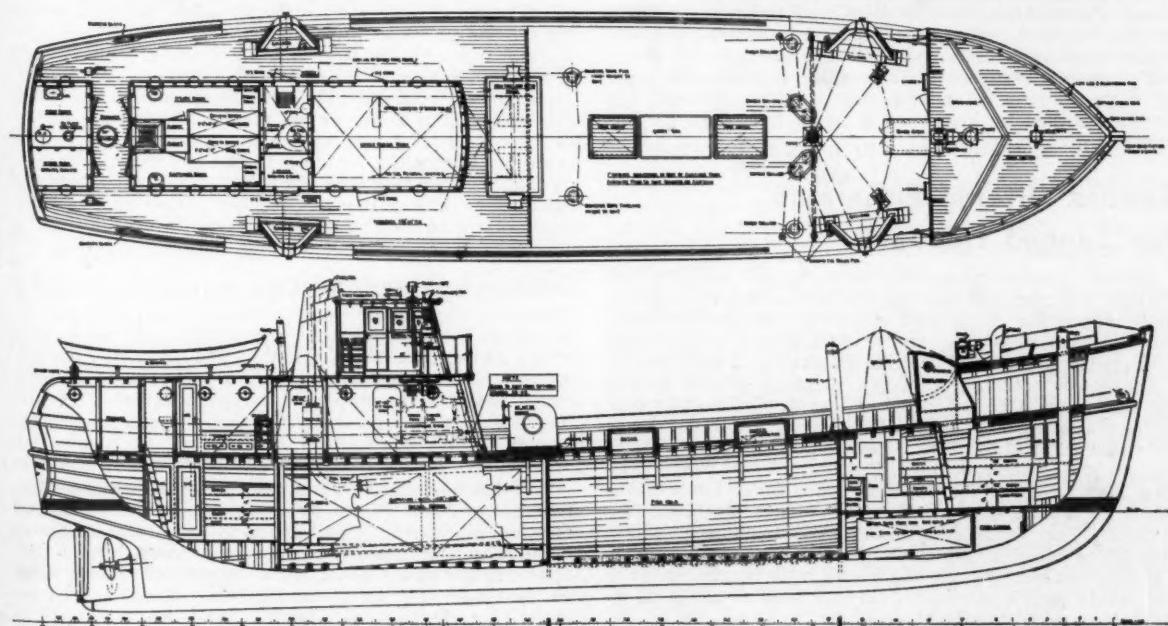
The main and auxiliary generating engines as well as all other machinery were thoroughly overhauled.

(Continued on next page)



John F. Sullivan, left, marine superintendent of F. J. O'Hara & Sons, Inc., Rockland, Me. with Capt. Percy Spurling of the Company's "John J. Nagle". Right: Deck of the dragger showing her Bodine & Dill winch.

Below: Deck arrangement and inboard profile plans prepared by Eldredge-McInnis, Inc. for conversion of 103' APC vessel to dragger "John J. Nagle".



Electric motors and generators were reconditioned and rewound where necessary. The vessel was completely rewired and fitted with new switchboard and controls.

A fish hold was built to provide capacity for approximately 175,000 lbs. of iced fish in 18 pens. It has a concrete floor with well and two scuppers. A new D-318 Caterpillar Diesel winch engine, rated 103 hp. at 1600 rpm. with Falk 6:1 reduction gear drive was installed in the forward part of the deckhouse.

The winch is a Bodine & Dill model and incorporates several features which were suggested by the owners to meet their particular requirements. Of special interest is the extra high location of the spools above the deck frame. The drums are 40" in diameter and there is a 28" space between the flanges. The winch has a capacity of 500 fathoms of 1" wire rope per drum, but in fishing operations 450 fathoms of $\frac{1}{2}$ " new type steel core American Steel & Wire cable are used. The gallows frames and deck bollards are of New England manufacture, anchors are from Danforth and the manila rope is Plymouth brand.

The John J. Nangle is powered with a 400 hp. heavy-duty, $12\frac{1}{2} \times 16$, 340 rpm., fresh-water cooled Superior Diesel, which gives the vessel a speed of a good 11 knots. The engine swings a 64 x 51 Columbian propeller on a 6" bronze shaft, and operates a 5 kw. tailshaft generator. Auxiliary generating service is provided by a 6 cyl., 30 kw., fresh-water cooled Hercules unit, with oil cooler. The accessory equipment is electrically driven and includes a 2 hp. exhaust fan, two combination bilge and sea water pumps with 4 hp. motors, and a Quincy air compressor with $7\frac{1}{2}$ hp. motor. There are three fuel tanks with a combined capacity of 6,000 gals. and a 300 gal. lube oil tank. Socony-Vacuum fuel and lubricating oils are used.

The fo'c'sle sleeps 8 men, and is equipped with electric refrigerator, pressure fresh water system and Shipmate #1200 oil-burning galley range. The oil tank for the range is located under the whaleback, and fresh water is carried in a 1500 gal. tank under the fo'c'sle floor.

The after quarters, which can be entered from the engine room or deck, has accommodations for six men and is supplied with hot and cold water. Aft of these quarters is a battery room containing fourteen 8-volt heavy duty Exide batteries.

The captain's quarters is located in the after port side of the deckhouse, and has a bunk with drawers under, closet and wash stand. A toilet room with lavatory and locker space for oil clothing is located on the starboard side.

The pilothouse is equipped with a Model DE102 Raytheon Fathometer, 75-watt RCA radiotelephone, Bludworth direction finder, Loran and two 300-watt floodlights. RCA radar is to be installed in the near future.

The vessel is fitted with a new 13" diameter fir mast, 47' high, set in a galvanized step on deck. Two 18' life dories, handled by booms on a jigger mast, are carried atop the deckhouse.

Reward Offered Fishermen For Tagged Haddock

Several hundred haddock were tagged recently on Pollock Rip and Browns Bank to obtain information on their migrations. Tags used were the Peterson disk tag, the Lea hydrostatic tag, and a tag inserted in the belly cavity with an external dangler attached to a light chain.

Fishermen catching a tagged haddock should retain the whole fish with tag attached and turn it over to one of the following Fish & Wildlife Service representatives for a reward of \$1.00: Tom O'Leary, Commonwealth Pier, Boston, Mass.; George Snow, Customs House, New Bedford, Mass.; George Clarke, Post Office Bldg., Gloucester, Mass.; Ed. Young, Customs House, Portland, Me.; Churchill Smith, Post Office Bldg., Rockland, Me.; Frank Riley, Post Office Bldg., Provincetown, Mass.

If more convenient, the tag, along with length, weight, and where and how caught, may be sent to the Fish & Wildlife Service, Washington, D. C.



The 37'5" x 12'4" x 4'4" dragger "Lil-Joy", owned by Robert E. Sutcliffe of Wakefield, R. I. The vessel's equipment includes White direction finder, Plymouth rope, Linen Thread Co. Gold Medal nets, Ideal hoist, and Wickwire wire rope.

Rhode Island Purchases Two More Patrol Boats

The Division of Fish & Game recently augmented its patrol boat force with the purchase of two former Coast Guard craft, both 38-footers. Franklyn P. Adams, State purchasing agent, revealed that one boat was bought from Arne Pedersen of New Bedford and the other from Louis Tavares of Warren.

The New Bedford boat, which will need sheathing to operate in cold weather, was to be delivered the latter part of December. Both boats provide sleeping accommodations for the crews and both were built about 10 years ago. It is planned to use them on a rotating basis with the Little Rhody, fast 40-ft. cruiser, and to retire the Wandoca, slow-moving veteran of the marine patrol.

Oyster Leases Transferred

Edward C. Hayes, Jr., administrator of the State Division of Fish & Game, recently announced the transfer of leases covering about 53 acres of oyster ground near Conimicut Point to B. J. Rooks & Son, Inc. of Warren, which leases an adjoining lot of 180 acres. Hayes said the Rooks company plans to transplant oysters on the new grounds immediately, and said all quahog tonging will be prohibited.

Last month about 30 quahog hand tongers in the Warwick area met with Hayes and John L. Rego, state director of agriculture, and asked the State to cancel the American Oyster Co. lease on the above grounds—arguing that the Company had not been using the grounds for many years. The petitioners further stated that oysters have not set in that section of Narragansett Bay for a number of years, and that the area is rich in quahogs.

Jamestown Waterfront Development Proposed

Drawing of plans to create a marine basin and pier at Jamestown's east waterfront was authorized last month by the Jamestown Town Council. The Council directed the waterfront development committee to hire Robert Lynch, engineer, to prepare a complete set of alternate plans and specifications including a survey and soundings.

To Install Deodorizing Equipment

The State has approved company plans to install equipment in the Point Judith trash fish factory to eliminate objectionable odors. The plant is to be air-conditioned, so that doors and windows may be kept closed in Summer. Air and fumes in the plant are to be processed with heat and chemicals prior to discharge. The equipment is to be installed by late Spring.

Great Lakes-Canada Lamprey Cooperation Proposed

An international commission to wipe out the sea lampreys which are destroying fish in Lake Michigan and other Great Lakes was proposed last month at the end of a two-day conference in Washington, D. C., of Canadian and United States Government officials.

Such a commission already has been approved by the Wisconsin Conservation Commission, according to Edward Schneberger, superintendent of fish management. Schneberger said that the commission would provide for a treaty on lamprey control which would be ratified by both governments. The commission would have three United States and three Canadian members.

He said the States bordering on the Great Lakes each would have an advisory committee for each lake, Wisconsin having two for Lakes Michigan and Superior. All these States except Ohio are reported to approve the plan. The other States are Wisconsin, Michigan, Illinois, Indiana, Minnesota, Pennsylvania and New York.

An attempt to control the lamprey is being made by blocking the eels from going upstream to spawn. This is done by electrically charged wires which shock them to death. Schneberger pointed out that international cooperation is needed because all spawning streams should be controlled.

Production Outlook for 1953

Commercial operators plying the Great Lakes foresee another record smelt harvest early in the year, and possibly a high yield of walleyes during the Spring season. Whitefish takes are expected to range fairly moderate throughout the year, with some decimated yields anticipated from Lake Superior waters. Fishermen believe an improved production will be had from Lake Michigan, but the harvest for the year is not expected to compare with whitefish production of years before.

Lake Erie commercial producers anticipate an improved whitefish yield in 1953. Bigger herring are foreseen for 1953 from Lake Erie, and the blue pike populations, growing into maturity, should be of commercial size and marketable in the Spring.

In December, eastern waters of Lake Erie were fairly productive of blue pike, judging by landings made in Pennsylvania waters. At Erie, Pa., Union Fish Co., Barcelona Fish Co., Circle Fish Co., Erie Fish Co., Smiley Fish Co., and the Ralph Fish Co., were handling moderate to good supplies of blue pike. Commercial fishermen in this area were shipping moderate amounts of blue pike to Chicago and Detroit markets, as were the Ohio producers who were making some fairly good whitefish catches.

Freezes Large Quantities of Herring

At Chassell, Mich., the Chassell Fisheries contracted for and deep-froze huge quantities of lake herring from Lakes Michigan and Superior. The fishery sells a major portion of its deep-frozen stocks to State institutions, camps, hospitals and other large quantity buyers.

New Fisheries Research Station

In Michigan's Upper Peninsula a more intensive fisheries research program has been assured with the recent opening of the Marquette Fisheries Research Station on the campus of the Northern Michigan College of Education, Marquette, Mich. The station was originated in part in response to the requests of fishermen who wanted an Upper Peninsula headquarters for handling of fisheries problems peculiar to the land above the Straits of Mackinac.

The projects with which the station will concern itself include lake and river survey work, study of the efforts of the sea lamprey dam on rainbow trout runs in Spring



The 50' x 15'6" fishing tug "Ewig II", owned by Ewig Fisheries, Cheboygan, Wis. Her power plant is a 90 hp. Kahlenberg, and she also has Kahlenberg steel propeller, air horn, and combination generator and compressor unit.

and Fall and other investigations pertinent to the purpose of the establishment of the new station.

Merl Gailbraith will be in charge, with Tom Stauffer as his assistant.

Lake Trout Planted in Lake Superior

The Michigan Conservation Dept. and Fish & Wildlife Service personnel recently released 75,000 hatchery-reared lake trout in Lake Superior in waters off Laughing Whitefish Point near the Marquette-Alger County, Mich. border. The fin-clipped fish came from the Federal fish hatchery in Charlevoix, Mich. All of the trout were about 4" in length.

Another 75,000 lake trout fingerlings also were planted in Pendill's Creek in Chippewa County, near Sault Ste. Marie, Mich.

Lake Trout Egg Collection Declines

According to personnel of the Marquette, Mich. fish hatchery, there were only 80,000 lake trout eggs gathered from Lake Superior commercial fishermen last Fall in the Munising and Marquette areas. This is an extremely sharp drop when compared with the 2,750,000 eggs collected two years before.

The biggest factor in the low quantity for 1952, according to Russ Robertson, hatchery superintendent, is the weather. He said high winds and storms during the Fall kept trout away from shore and fishermen's nets.

Distribution of planted trout is prorated on a basis of source of collections. For instance, trout planted from eggs taken this past season will be released in Marquette and Munising waters only.

Lamprey Infestation in Lake Superior

The sea lamprey has been present in Lake Superior since at least 1946. During the past three or four years scarring has been noted by fishermen and in a few instances the lamprey itself has been caught while still attached to a fish.

The Wisconsin Conservation Department, in order to obtain lake trout spawn for the Bayfield, Wis. hatchery, placed nets in Lake Superior last Fall in the vicinity of Gull Island shoals. These nets were fished on two successive days with a total of 470 fish weighing 3,464 lbs. taken for the period. Sea lamprey scars were found on 45 of the 470 fish caught; of these 45 scars, 5 were fresh while the other 40 were healed. This represents a scarring percentage of 9.5%.

While an evaluation of these observations could not be considered valid unless carried on for a longer period of time and with a larger number of fish, there is enough material to use in the future on a comparative basis. If in the future when large catches of fish are made and the same ratio of scarred to unscarred fish occurs, then the infestation may indeed be termed as "serious".

Boston Seafood Production Highest in Several Years

Total landings at the Boston Fish Pier for the year 1952 were the highest for any year since 1948, amounting to 173,136,600 lbs. The catch was valued at \$14,341,400, and showed an increase of 1% in volume when compared with the 1951 total. In 1948, production amounted to 199,459,200 lbs. The average price received in 1952 was \$8.28 per hundredweight, which was approximately the same as last year.

The haddock yield amounted to nearly 110 million lbs., and accounted for 63% of the total catch. This was over 2 million lbs. larger than the 1951 haul, with haddock scrod responsible for the increase.

Landings of cod were up $\frac{3}{4}$ million lbs. to 21 $\frac{1}{2}$ million. The catch was made up of 14 $\frac{1}{2}$ million lbs. market cod and 7 million lbs. large cod. Among other species which showed gains was pollock, with a catch of 11 $\frac{1}{2}$ million lbs. for a 3 million lb. increase over 1951. The heavier supply was reflected in the average price, which fell about 1¢ per pound. The swordfish haul more than doubled, being 35,000 lbs.; and the average price was approximately 44¢ per pound, or 9¢ lower than in 1951.

A 68% decline was registered by dabs, landings of which were about 1 $\frac{1}{2}$ million lbs. The price was up approximately 1¢. Whiting dropped from 10 million lbs. to 8 $\frac{1}{2}$ million, and the price for this variety fell $\frac{3}{4}$ ¢.

Over three-quarters of the total landings were by offshore vessels, which brought in 1,635 trips. Inshore boats got about 36 million lbs. in 2,917 trips.

"Surge" Lands Mackerel

The Boston trawler *Surge* had 21,000 lbs. mackerel in her total catch of 100,000 lbs. fish at Boston Fish Pier December 18. The mackerel brought \$8.05 per 100 lbs., and was worth a total of about \$1700.

Fisherman Awarded Damages

Charles Poirier of East Boston was last month awarded damages of \$150,000 in a suit against owners of the ill-fated Boston trawler *Gudrun*. Poirier lost his left arm and most of his right hand in an accident which occurred aboard the *Gudrun* while she was operating off Newfoundland in November, 1950.

North Carolina Having Good Menhaden Season

A report from C. D. Kirkpatrick, State Commercial Fisheries Commissioner, indicates that menhaden prospects are good this season. He says that most of the fishing boats are bringing in the large fish which are, of course, the most valuable. The oil content of the menhaden is running as high as 15 gallons to the thousand, and Kirkpatrick expects that the fish will be brought in great quantity if the weather is favorable.

Kirkpatrick also reported that the oyster season is going along very well. The oysters are not quite as fat as last year, but production has been good. Food fish catches have been excellent, and are better than in a number of years.

Practically all of the scallops in the North Carolina area died this year. The prospects for the scallop season had been excellent, but the catches now will amount to almost nothing.

New Fisheries Association Being Organized

The fishing interests of the North Carolina coast will be joined together when the State's marine fishermen complete the organization of their new North Carolina

Fisheries Association. The movement was begun in November, 1951, when a few fishermen and dealers met at New Bern, and it grew rapidly. The membership will include men who are engaged in catching, preserving, handling or dealing in fish or seafood or non-edible products in any form.

The first broad purpose stated in the certificate of incorporation calls for the study, promotion and development of the propagation, growth, conservation, and use of all kinds of fish and seafoods. It is the intention of the Association not only to encompass the problems of the industry, but to give adequate recognition and representation to all phases and locations of the North Carolina fisheries.

Oyster, Clam Yields High in Two-Year Period

The combined value of finfish and shellfish taken from North Carolina waters during the two-year period ending last June 30 has been placed at more than \$16,000,000, according to a report prepared by C. D. Kirkpatrick, State Fisheries Commissioner.

The catch of food fish for the biennium was 41,715,000 lbs., with a value of \$4,020,150 to the fishermen. Production of spotted and gray trout and flounders showed a decrease of about 50% from the preceding biennium, but the take of shad and pompano was about double. Kirkpatrick put the valuation of the menhaden catch for the period at \$7,000,000.

As a result of the law enacted in 1947 providing for the development of the State's oyster and other bivalve resources, the harvest of oysters for the past season was the finest in quantity and quality in the history of the State. There were 305,565 bushel tubs of oysters harvested off the public grounds, with a value to the oystermen of \$763,912. The total amounted to about 50,000 more bushels than for the previous period.

The clam harvest of 253,500 bushels was described as having been the largest in the State's history for any comparable period.

Menhaden Boat Washed Ashore

The menhaden boat *Doswell S. Edwards*, which went down at Beaufort Bar December 8, came ashore at Fort Macon State Park. The boat is owned by Beaufort Fisheries.

The *Edwards* sank as she was being towed into port by another menhaden boat, the *W. A. Mace*. Capt. T. B. Piner, skipper of the *Edwards*, said that the towing hawser broke as the ships reached the bar. The *Edwards* began to fill with water and sank in about ten minutes. The 23 crewmen abandoned ship in the purse boats and were picked up by the *Mace*.



E. F. Simpton's 55' x 17' x 7' fishing boat "John L. Jr." of Galveston, Texas. Built at Galveston in 1945, her power plant is a 165 hp. General Motors Diesel.

Louisiana to Have New Menhaden Plant

Plans for a million dollar menhaden fish processing plant at Wax Lake outlet between Patterson and Franklin were revealed last month by Capt. John Santos Carinhas of Patterson.

Owner of a large fleet of menhaden fishing vessels, a shipyard, and shrimp company in Patterson, Capt. Carinhas said that he and George R. Wallace of Morehead City, N. C. would be jointly interested in the new factory, which would employ between 300 and 400 persons.

The only obstacle to the new industry for St. Mary Parish at the present time is the deepening of the channel south of the mouth of Wax Lake, Capt. Carinhas stated. A survey of the channel depth has been made by the contracting firm of Sam Carline of Berwick and Calumet.

Oyster Canning Season Opens

The cannning season for oysters taken from the natural reefs of Louisiana opened January 1 and will continue until further notice, according to L. D. Young, Jr., executive director of the Louisiana Wild Life and Fisheries Commission.

Appoints Wild Life & Fisheries Board

Gov. Robert Kennon appointed the seven members of the newly-created State Board of Wild Life and Fisheries recently. The board, created by a constitutional amendment which went into effect on December 11, supervises the State Dept. of Wild Life and Fisheries, which has charge of all fishing, shrimping and oystering.

Those appointed were J. W. Doxey of Cameron; Alfred C. Glassell, Shreveport; C. H. Brookshire, Meaux; Jerry J. Besson of Baton Rouge; Aubin Buquet of Houma; O. A. Lahaye of Eunice and George A. Foster of Pollock.

Netting Banned in Lakes

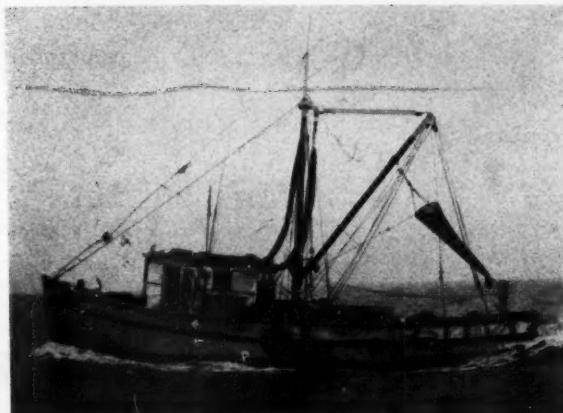
Effective December 20 and until further notice, all commercial fishing and shrimping by means of seines, trawls or any other nets or netting of whatever type in waters of Lake Maurepas, Pass Manchac and Lake Pontchartrain was banned by the Wild Life and Fisheries Commission. The order does not apply to shrimp taken as bait in quantities allowable by law when shrimp are taken with cast nets or with 16-ft. trawls or less. The Commission also announced that all commercial fishermen and shrimpers must have their 1953 licenses by February 1.

Mississippi Oyster Beds Are Hit by Drought

Mississippi oyster beds are reported to have suffered tremendous damage because of the drought that the State has experienced during the past year. According to Dr. A. E. Hopkins, head of the Gulf Coast Research Laboratory in Ocean Springs, conch damage to the main oyster reefs has been quite extensive because of the high salt content of the water.

Figures from the Mississippi Seafood Commission show that oystermen took 4550 barrels of oysters during November. "It is significant that these oysters were taken mostly from St. Joe Reef at the mouth of Lake Borgne," the scientist declared. "There the fresh water keeps the salt content of the water low and unfavorable to the conch. Lake Borgne has the freshest water of all the Mississippi reefs."

It is the drainage of the smaller rivers and creeks which protects the beds near Pass Christian, Horn Island and Ship Island by keeping the salt content to about half that of ordinary sea water, Dr. Hopkins observed. He



Donald H. Green's 52' shrimper "Rosemary" of Berwick, La. Powered by a 100 hp. Superior Diesel with 3:1 Joes reduction gear, the craft has SurEcho depth sounder and is finished with Hart & Burns Navicote paint.

said that this was about the best condition for producing a tasty oyster.

"Oregon" Explores Campeche Area

During December the Fish & Wildlife Service's exploratory vessel *Oregon* made trawl drags in the 15 to 30 fathom range east and south of Arcas Reef in the Campeche area, and a series of drags northeast of Arcas along the northern edge of the present shrimp fishery. Tuna bait fishing at night also was successfully carried out off Arcas Reef.

All shrimp taken in the Campeche area on this cruise were the pink variety, and drags were made only at night. The production of the region north of the present shrimp grounds appears to offer the best possibilities for extension of the fishing area at this season. The area southwest of the present fishing did not produce favorably compared to the area to the north. In positions near 20°-20' N 91°-28' W, particularly good results were obtained and reported to the fleet by radio. Northwest of this position shrimp were found, but not in such heavy concentrations.

Fisheries Commission to Move

The Mississippi fisheries commission will move to Jackson from Batesville. The fisheries division began three years ago with one man, and has now grown to 12 biologists.

South Carolina's Right to Seize Unlicensed Shrimpers Upheld

South Carolina has the constitutional right to confiscate shrimp boats found fishing coastal waters without a State license, the State Supreme Court ruled on December 10. The State high court adopted the Circuit Court opinion of Judge J. Woodrow Lewis.

In his decision, Judge Lewis noted that the boat operator would have to be convicted of operating without a license before a boat could be confiscated. He upheld the right of Fisheries Board inspectors to inspect all shrimp boats, warehouses, etc. at any time, and to make arrests without warrants when anyone actually was seen violating the laws.

Crab Trawling Resolution Modified

South Carolina fishermen now can trawl for crabs in State sounds, bays and rivers with nets having a 5" mesh tail bag. Permission was granted by the State Wildlife Resources Commission.



Ronald House, 14-year-old South Bristol, Me. high school student, baiting up a lobster pot from his 16' skiff, powered by an Evinrude Fleetwin outboard motor. The youth has a string of 59 lobster traps.

Maine Seafood Catch Sets All-time Value Record

Sea and Shore Fisheries Commissioner Robert L. Dow recently announced that Maine commercial fishermen chalked up an all-time record of more than eighteen million dollars for the value of their catch in 1952. This dollar value exceeds the previous record set in 1948 by two million dollars, an increase of nearly 13 percent, Dow said.

In summarizing fishing returns for 1952, Dow stated: "Total landings for the year were some 70 million pounds under the record set in 1950 when more than 350 million pounds of fish and shellfish were landed at Maine ports. The 1952 production of 280 million pounds was still 50 million pounds above the ten-year average.

"The drop in production from the record year of 1950 can be attributed primarily to declines in redfish production of nearly 20 million pounds and in herring production of 35 million pounds. Additional declines were registered in several of the groundfish species.

"Two species, redfish and herring, normally make up 75 percent or more of the volume of Maine's total fish and shellfish production and nearly 30 percent of the catch value.

"Redfish landings of 60 million pounds brought fishermen nearly two and three-quarter million dollars in 1952. Herring landings were up 90 million pounds from the 1951 catch of approximately 60 million pounds. The 1952 catch was worth nearly one and three-quarter million dollars.

Lobster Yield Heavy

Commissioner Dow revealed that the Maine lobster set a new record for the value of the catch in 1952. He said: "This record of nine million dollars exceeded the previous record set in 1945 by more than one million dollars. A considerable amount of the increase in lobster value can be traced to increased demand stimulated by the lobster promotion program carried on during the year by the Department of Sea and Shore Fisheries and the Maine Development Commission. One very tangible result of this program has been a 25 percent expansion of lobster consumption in certain Midwestern markets and the opening and development of market outlets in the Southwest.

"Production of lobsters during 1952 was only one-quarter million pounds under the 1951 record of 20,759,500 lbs. The 1952 catch was the second largest since 1892. It is noteworthy that the lobsters caught during August, 1952, amounted to 4,719,650 lbs., the highest monthly catch on record, valued at \$2,055,800. The value of this

single month's catch exceeded the annual value of the lobster yield for every year prior to 1943.

"Clam production, Maine's second most important shellfishery, was up about one-quarter million pounds and nearly one-half million dollars as compared with 1951 figures. The volume yield of this fishery appears to have levelled off at some over 5 million pounds annual catch, approximating the pre-World War II level.

"The quahog or hard-shell clam fishery of Casco Bay, assisted by the cooperative management program maintained by the Department of Sea and Shore Fisheries and the several towns concerned, has remained for the last four years at the same high level of production, despite a generally diminishing supply during the period.

"Among the other major species, sea scallop production of 1½ million pounds during 1952 was the highest since 1912 and the value of the catch, \$663,000, was by far the highest on record. Although the inshore catch is reported to have been considerably less than during the two previous fishing seasons, good market conditions stimulated offshore dragging to make up more than the difference," Commissioner Dow concluded.

Dragger "Evzone" Burns and Sinks

The fishing dragger *Evzone* capsized and sank off Rockland last month as a result of fire and explosion. Capt. Arthur Jordan and the four-man crew of the 82-ft. dragger were rescued by the Rockland fishing vessel *Flo*, Capt. Walter Ross. Just before abandoning ship, the radio, which had been out of commission for two days, started to work and the men were able to send a distress signal. The *Evzone* was built nine years ago, and was owned by Mid-Central Fish Co., Portland.

Sardine Pack Totals Three Million Cases

The 1952 Maine sardine pack totalled 3,002,000 cases, according to official figures released by the industry's executive secretary, Richard E. Reed. He said that production was slightly higher than the average annual pack for the past ten years, but that it had been surpassed four times during that period. The industry's all-time record was 3,900,000 cases in 1950, while 1951 was a very poor year with a 1,600,000-case pack.

The bulk of the 1952 production was canned during mid-Summer, as the usual fair Spring and large Fall runs of fish did not materialize.

Long Island Clam Fishery In Excellent Condition

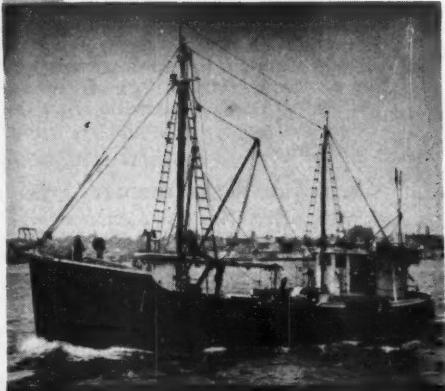
According to a report by the Fish & Wildlife Service, Long Island's clam fishery is presently in excellent condition. The report states that until about 15 years ago Shinnecock and Great South Bay were the most consistent clam-producing areas, but in more recent years clams have been found in nearly every bay and cove on both the north and south shores.

For the past three years, Fish & Wildlife Service personnel have been interviewing baymen, dealers, and Conservation Dept. heads regarding the clam industry. The Fish & Wildlife Service report also stated:

"The opening of the intracoastal waterway around 1930-31 with channels to harbors for the coastal towns (Babylon, Bay Shore, Lindenhurst, etc.) was followed by greatly increased clam production. It is the general opinion of local dealers and watermen that increased salinity tripled the clam-producing area of Great South Bay. Eel grass began to disappear about 1931 and also is believed to have increased the clam-producing bottom by permitting good circulation of previously choked shallow flats.

"Fishermen report sets are not regular, but frequent enough to maintain a good constant supply of clams. The most recent heavy set appearing in the fishery occurred in 1941. This set was good along both north and south

The R. W. Griffin, Jr. Gets a Line on GOOD EATING ... with NEW BEDFORD ROPE, of course



Get this useful New Bedford Chart showing the difference in breaking strength of Manila, Sisal and Nylon.

Outfitting a ship shape scallop dragger like *R. W. Griffin, Jr.* for an extensive commercial fishing operation involves a wide variety of gear and the service of many suppliers. When it comes to rope, however, there is only one brand in use for tackle, buoy, and mooring lines . . . it's New Bedford, of course.

Captain Vincent and his crew of ten are not alone in their preference for New Bedford Rope. Its long life, special lubrication features, and the New Bedford kink-resistant lay combine to save minutes per hour, hours and dollars each month in rope replacements, handling and stowing aboard America's finest passenger, cargo, and fishing fleets.



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shores with the result that the north shores are at present more productive than ever.

"Dealers in the eastern part of Long Island (Orient Harbor, Peconic, Shinnecock, and Moriches Bays) report depletion of clam stocks and believe overfishing and failure of setting to be the principal causes. This apparent depletion is not as serious as the dealers reported." The report gave two reasons why a reduction in yield could be possible; first, less men employed in the fishery, and, second, the inability of dealers to compete for the lesser supply of clams. "The consistently higher prices which have prevailed for the past several years and the proximity of the New York market have lured many more small dealers into the business. These small buyers can operate with low overhead, and can therefore pay a slightly higher price than the established companies."

The report as a whole leaves the impression that, except for duck farm pollution on the south shore, the clam fishery is in good shape. It states that New York (Long Island) ranks first in hard clam production, and there is no immediate danger of depletion by "over-exploitation." A graph published along with the report shows that New York produced more than 40% of all hard clams harvested along the Atlantic seaboard.

Herring Run Threatens Power Plant

A run of herring threatened last month to cripple the Long Island Lighting Company's plant at Glenwood Landing. Twenty men were assigned to the emergency job of scooping the fish off six intake screens through which sea water passes. With their hands, coal shovels, wheelbarrows and finally dump trucks, the crew removed more than ten tons of herring.

Fishing in Southern Waters

Les Schwan's Stanbee and Bill Murdock's Alice & Rita are fishing in North Carolina, bringing to six the number of Islip draggers operating out of New Bern.

KIRBY'S MARINE PAINT oldest name from MAINE to FLORIDA



**First choice of:
FISHERMEN • WORKBOATS
PLEASURE CRAFT**

WOODEN BOTTOMS

Copper Anti-fouling Paint Anti-Corrosive Brown Primer
Seven Seas "Foul Proof" Anti-Fouling Red

HULLS

Marine Black & White	Yacht White
Yacht Black Enamel	Yacht Enamels

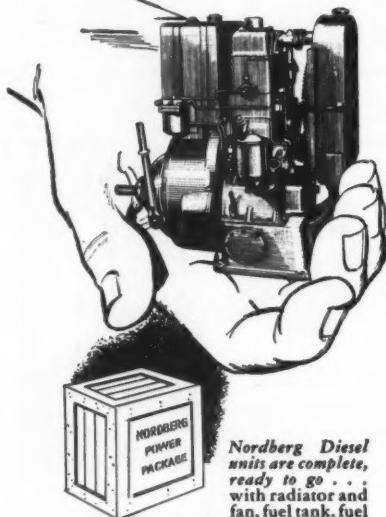
KIRBY'S "non-fade" Bottle Green

Deck Enamels	Engine Enamels
"Man O' War" and other Varnishes	



GEORGE KIRBY JR. PAINT CO.
MAKERS OF MARINE PAINTS SINCE 1846
NEW BEDFORD, MASSACHUSETTS

Here's your COMPLETE, COMPACT **NORDBERG** Diesel Engine . . . READY TO GO!



Nordberg Diesel units are complete, ready to go . . . with radiator and fan, fuel tank, fuel

and lube oil filters, air cleaner, and starting system. Fill the radiator, crankcase and fuel tank and you're producing reliable, low cost power . . . for power units on shovels, for crane magnets, for pumps in mines, quarries, and irrigation, for petroleum production pumping, for auxiliary generator sets ashore and afloat, for standby lighting units in manufacturing plants—and for hundreds of other power jobs.

Built in 1, 2, and 3-cylinder sizes from 10 to 45 hp, these heavy duty medium speed units are available as straight power units with stub shaft or clutch power takeoff—as generator sets producing from 6 to 30 K.W.—and as "packaged" centrifugal pumping units.

Send the coupon today for more details.

NORDBERG MFG. CO., Milwaukee, Wis.

NORDBERG
BUILDERS OF AMERICA'S LARGEST
LINE OF HEAVY DUTY DIESELS

MAIL THIS COUPON TODAY

Nordberg Mfg. Co., Milwaukee, Wisconsin

Send catalog covering Nordberg Type 4FS Diesels. I am interested in a unit for the following service:

Your Name _____

Company Name _____

Address _____

City _____ Zone _____ State _____

Texas Oysters Are Staging Comeback

The Texas oyster industry is making a big comeback after a steady drop-off for twenty years. In the fiscal year 1950-51 the production of oysters increased to 75,435 lbs., a gain of 12% over that of the previous year. In the 1951-52 fiscal year, the yield was 176,455 lbs., an increase of 155% in a period of two years. The production in the first two months of the 1952-53 year was 37,056 lbs., which was 53% of the entire haul in the 1949-50 period.

A project for increasing the oyster yield is being carried out by the Texas Game & Fish Commission. At a number of locations, satisfactory bottoms and old oyster reefs were selected, cleaned and covered with fresh oyster shells. Special attention was given to acquainting oyster producers with the necessity of proper care of oyster beds through careful harvesting and return of clean shells. Better sanitation standards are now required in handling, shucking, washing and storing oysters.

Brings Suit in Sinking

Herndon Marine Products, Inc. of Corpus Christi have filed suit in U. S. District Court against the S. S. Petersburg, Paco Tankers, Inc., Keystone Shipping Co. and the Pennsylvania Shipping Co., asking recovery of \$12,000 damages in the sinking last July of the trawler Victory.

According to Herndon's petition, the Victory was inbound through the Corpus Christi—Port Aransas channel when the sinking occurred. The Victory had passed the Petersburg which was docked and two hours later the Petersburg attempted to pass the Victory. The two boats collided and the Victory capsized and sank, resulting in the drowning of a deckhand.

Baughman Resigns Post

Jack L. Baughman has resigned his post as Chief Biologist of the Texas Game & Fish Commission. He has been chief biologist of the Rockport marine laboratory since 1947. During his term of service the new laboratory building was constructed, and a number of biologists were added to the staff to direct separate projects which had been initiated.

Among these are experiments looking to the re-establishing of the Texas oyster industry. Tagging of fish and shrimp to determine migration periods and measures to stop pollution from oil wells, tankers and industrial concerns, were other projects underway at the time of Mr. Baughman's resignation.

Mr. Baughman will now devote all his time to fulfilling the positions

of biologist and director of research for the Copano Research Foundation and the Las Olas Oceanographic Institute. He is already executive secretary of the Copano Foundation and president of Las Olas.

To Build New Shrimp Docks

Contract for construction of 2700 ft. of docks at the new Brownsville shrimp harbor has been awarded to the Austin Bridge Co. of Corpus Christi. The Brownsville Navigation District will supply the piling and timbers.

Red Tide Off Tampico

Tampico, Mexico fishermen recently reported finding thousands of mackerel floating dead on the surface of the Panuc River, apparently victims of the red tide which has appeared in the Gulf of Mexico lately. The local fish commissioner ordered public health laboratories to make an examination to learn the cause of so many fish being killed.

Handling Paint Line

L. K. Gundersen of Corpus Christi, Tex., is a new distributor for the marine paint line made by Pittsburgh Plate Glass Co.

Florida Looks for Big Shrimp Season

Shrimping activities in Key West are on the upswing after the regular seasonal layoff. Shrimp fishermen who have spent the Summer and early Fall fishing in northern waters have already begun to flock to the city, and veteran observers predict a banner season.

Over 300 boats are expected to dock at Key West during the peak of the season, and operations at Marathon also are on the upswing, with nearly half a hundred boats fishing from that port.

Crawfishing and commercial fishing operations are in full swing, with all indications pointing to a better season than in the past year. One fisherman predicted that, with good weather for the next two months, Key West would enjoy the greatest commercial fishing boom in its history.

Make Good Salvage Haul

Three Miami shrimp fishermen and five crew members of two shrimp boats may share prize money totaling \$75,000 for salvaging two sunken shrimpers and assisting a third disabled craft. The shrimper Spot Pack came into Miami early last month with 10,000 lbs. of shrimp in her hold and two prize vessels lashed alongside. Aiding the Spot Pack in bringing home the other vessels was the Mammy Yokum out of Sarasota.

Capt. Marvin J. Miller, skipper of the 104' Spot Pack, said they ran into

a nor'wester in the Gulf of Mexico about 80 miles north of Campeche October 9. The Spot Pack pulled the shrimper *Fiesta* off a reef and then found two other shrimpers sunk in about five feet of water in the same area. Their crews had been taken aboard the *Fiesta*.

After days of back-breaking effort, the shrimpers were finally floated and with the help of the *Mammy Yokum*, Capt. W. K. Weinhold, they were brought into Miami.

Sponging Improves

Sales which brought a total of \$10,476 at the Tarpon Springs Sponge Exchange on one day and \$10,581 on another, indicate that better times are coming to the industry which has been in a slump since 1948 when only \$500,000 worth of sponges were sold.

Fishermen and buyers generally agree that the wool, grass and yellow sponges contained in the catches were of good quality, and they report that the sponge beds in the Gulf are now generally in a healthy condition. There are said to be plenty of small sponges of all three of these commercial types. During the past three or four years, sponge beds have been blighted, but now they give indication of being on the way to recovery. Spongers report that they bring up a larger and better haul each time they go out, according to Mike Sammarkos of Sammarkos Bros., Sponge Packers, Inc.

Receives Appointment

Dr. Clarence P. Idyll, research associate of the University of Miami Marine Laboratory, has accepted an invitation to be a member of the Quality and Research Committee of the Shrimp Association of the Americas. His function on the Committee will be to advise the Association on technological aspects of shrimp quality.

Dr. Idyll has headed the shrimp research of the University of Miami Marine Laboratory in this phase of the Laboratory's work for the Florida State Board of Conservation.

Seek Funds for Laboratory

An appeal for funds to build a \$30,000 oceanside laboratory is being made by the University of Miami Marine Laboratory, Coral Gables. The proposed structure would be the basic unit of a larger future plan which would include more laboratory rooms and eventually "the most modern aquarium in the world."

Distributing Paint

Ellis & Lowe Co. Inc., Morgan Street, Tampa, has been made distributor for Pittsburgh Plate Glass Co. marine paints on the West Coast of Florida, serving the territory from Key West to Pensacola.

Bristol Yacht
Boatyards
Bristol
Maine



New Scallop Dragger...

JUST LAUNCHED BY BRISTOL YACHT BUILDING CO.



The Ruth-Moses, just leaving the ways in picture above, will soon be plying out of New Bedford. Built for owner Moses Schonfeld and Capt. Martin Anderson, it has a powerful Wolverine Diesel with AQUA-CLEAR Feeder.

Harvey Gamage of the Bristol Yacht Building Co. is another fishboat builder who has adopted the AQUA-CLEAR Feeder when installing all the latest marine developments to assure most efficient and profitable operation.

Industrial models solve difficult rust and corrosion problems in water lines, tanks, refrigeration systems for packers, canners, other food processors. Write for folder.

USES

AQUA-CLEAR FEEDER

Toss away your heat exchanger troubles! For hundreds of years there was no safe way to operate an engine cooling system with salt water. Now the AQUA-CLEAR Feeder has done away with the heavy expense and upkeep problems of closed cooling.

Stops Rust and Corrosion

Cylinder heads, manifolds, water jackets and liners can never rust or corrode. Also prevents salting down the engine, even under abnormal temperatures. Made for all kinds and sizes of engines, either gasoline or diesel.

Also makes old engines last longer. Many fishboats now in service are doing away with closed cooling systems and replacing with the remarkably simple, low-cost and reliable AQUA-CLEAR Feeder.

BETTER and CHEAPER than Closed Cooling

Over
10,000
Now in Use

No moving parts to wear out or break down—no heat exchangers, no expansion tanks, no extra pumps, no holes through the hull. It costs much less too—only \$50 to \$75 for engines up to 150 h.p. with larger sizes in proportion.

CUTS OPERATING COSTS

Saves hundreds of dollars in original cost and installation—better yet, requires no maintenance. Just add a few pounds of AQUA-CLEAR Crystals once or twice a season. Inexpensive to install—saves a lot of room.

Write for FREE Folder!

Tells how to cut expenses, make engines last longer—and make more profits with your boat.



Dealers: Write
for Special Offer.

SUDSBURY LABORATORY
Box 572, South Sudbury, Mass.

Chris-Craft

WORLD'S BEST BUYS IN MARINE ENGINES

for fishing boats, work boats
—for any commercial use!

Model B, 60 h.p.



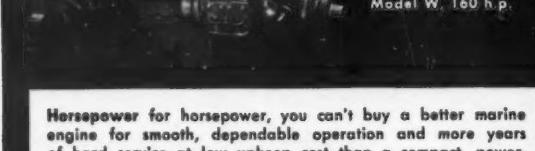
Model K, 95 h.p.



Model M, 130 h.p.



Model W, 160 h.p.



Horsepower for horsepower, you can't buy a better marine engine for smooth, dependable operation and more years of hard service at low upkeep cost than a compact, power-packed Chris-Craft! Read what this user says:



Vinny Lewis

"In addition to pulling loads ranging to 75 tons on an 85-ft. lighter," says Vinny Lewis, Portland, Maine, "we sometimes use our converted Army M boat for tearing out pilings around the Portland, Maine harbor. Our 95-h.p. Chris-Craft engine delivers the power for all our work, and in several instances we've snapped a 1½" manila line trying to remove pilings! We found that such a feat requires a pull of well over 10,000 pounds. Our Chris-Craft engine continues to operate efficiently under these conditions all year long."

Chris-Craft Marine Engines are available in 60, 95, 105, 120, 130, 131, 145, 158 and 160 h.p. with reduction drives and opposite rotation for most models. See your Chris-Craft Dealer or mail coupon for FREE catalog today! Buy NOW!

CHRIS-CRAFT CORP., MARINE ENGINE DIV., ALGONAC, MICH.
WORLD'S LARGEST BUILDERS OF MOTOR BOATS

CHRIS-CRAFT CORP., Algonac, Mich.

Send FREE Chris-Craft Marine Engine Catalog to:

FREE!

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Address _____

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New Bedford Producers Assoc. Elects Murley President

Capt. John G. Murley of Fairhaven, owner of a fleet of six fishing vessels operating out of New Bedford, succeeds Capt. Rudolph B. Matland as president of the Seafood Producers Assoc., Inc., a position held by Capt. Matland for the past two years. Election was held December 27 and was attended by approximately 60 boat owners, representing nearly half of the New Bedford fleet. John F. Linehan, business manager, presided.

John J. Gobell was named vice-president; Capt. Matland, treasurer; and Capt. Murley's son, John A. Murley, was re-elected secretary.

Directors elected to office for the 1953 term are: scallopers, Josef Isaksen, Magnus Thompsons, Isaac Norton, Michael C. Smith, Morris L. Phillips and Shirley G. Mitchell, Jr.; large draggers, Lief Jacobsen, Olaf Anderson, Hans Haram, Herman G. Saunders, Sofus Mortensen and Mr. Gobell; small draggers, Warren Vincent, Mathias Bendiksen, Tharald Drivdahl, William J. Collis, Louis Skinner and Capt. Matland.

Bill Would Have Freezer Operated by State

Establishment of an authority to acquire and operate properties of the Harbor View Marine Corp. of Fairhaven is proposed in State legislation filed by Rep. F. Eben Brown of Fairhaven. The company owns and operates the Mullins freezer in Fairhaven. The authority, which would be known as the Fairhaven Marine Authority, would consist of three members—one being the Commissioner of Conservation, with the two others to be named by the Governor.

The proposed authority would be self-sustaining and expenditures would be met by leases for facilities at rates sufficient to meet all financial obligations. One of the appointees of the Governor, under the terms, would be a person expert in the operation of a fish freezer plant.

The authority would issue 40-year bonds to pay off the purchase price, and expenditures for improvement of the operation and leases would be based on a 20-year term with the charges being sufficient to pay all expenses.

Big Fleet in as Result of Storm

Because of heavy seas, 22 draggers and 21 scallopers landed in New Bedford on December 22. Authorities stated that there had not been as many vessels at New Bedford since the strike last Summer.

Thirty-four of the 43 vessels hailed for 131,175 lbs. of scallops and 243,100 lbs. of fish at the daily auction. The other boats held over until the following day.

Scallop "Antonio" Sold

The scalloper Antonio has been sold to John Sylvia of New Bedford, owner of the dragger Harmony and part owner of the Hope II.

Sponsors Bill for Fisheries School

John E. Foster, president of the New Bedford Textile Institute, has sponsored a bill in the Legislature calling for a State school of fisheries at the New Bedford Institute. Students could supplement their courses in New Bedford with further studies at the Woods Hole Oceanographic Institute, Mr. Foster pointed out.

Rules "Gay Head" Was Seaworthy

Judge Francis J. W. Ford last month ruled that the fishing vessel Gay Head, which was lost with all hands on August 20, 1949, was seaworthy. He also ruled that Julia, Inc., owners of the vessel, were not liable for the loss.

"Lera G." Gets Depth Sounder

A SurEcho depth sounder has been installed aboard the dragger Lera G., owned by Manuel DeMello of South Dartmouth, by A. Russell Gifford.



Could you use these plus features IN MARINE RADIO TELEPHONY?

What are the *plus* features you get when you equip your boat with a Hudson American Marine Radio Telephone?

You get a sound investment in safe, convenient radio communication. You get an instrument which will pay for itself in time saved, in business handled more efficiently, at greater profit. And you get an instrument with an unsurpassed record in commercial operation ... in performance ... with the lowest possible upkeep and maintenance costs.

There are five Hudson American models to choose from. Ask your dealer to show you the model best suited for your boat. See your dealer today.

SHIP-TO-SHIP • SHIP-TO-SHORE • COAST GUARD

"VIKING" I, II

- High-fidelity operation in frequency range of 2,000-12,000 kc.
- Six pre-selected crystal-controlled channels.
- Power output: "Viking I", 50 watts; "Viking II", 100 watts. Plate input power: "Viking I", 85 watts; "Viking II", 140 watts. Each model develops full power, even at highest frequency.

"MASTER MARINER"

- Extremely powerful: Power output of 80 watts; plate input power 137.5 watts.
- One compact, self-contained unit. Simplified controls. Operates on standard 2,000-3,000 kc band.
- Six pre-selected crystal-controlled channels; 2 Ship-to-Ship; 3 Ship-to-Shore; and 1 Coast Guard for emergency.

Write for complete information

HUDSON AMERICAN CORPORATION

A subsidiary of Claude Neon, Inc.

25 West 43rd Street, New York 18, N. Y.

Export Division 100 East 42nd St., New York 17, N. Y.

National Motor Boat Show

(Continued from page 23)

known as the "Star", excelled 3 and 4 blade types by from 3% to 9%. Besides the experiments run by the firm's field men, boat operators used the 5-blade propellers for weeks at a time, carefully keeping records as to the general performance, fuel consumption, vibration, speeds, etc. These tests also clearly showed the advantages of the 5-blade wheel.

International Paint Has Boat Service Clinic

The International Paint Co. exhibit featured a boat service clinic where boatmen as well as professional painters were invited to talk over their boat painting problems. A number of three-dimensional boat models were displayed, each painted in a different attractive color combination. Interlux color combination guide sheets reproduced in actual colors were available free.

International makes a full range of bottom paints to meet the various conditions of boat service and location, and these were on exhibit. They range from hard racing bottom paint to anti-fouling compositions suitable for vessels that must operate in the most fouling waters. In the interest of proper application of their Vinyl-Base bottom paint, Viny-Lux, International offered a free folder on the subject.

Wilfrid White Exhibits "Universal" Binnacle

Wilfrid O. White & Sons, Inc. displayed their "Universal" binnacle for the first time. Of thoroughly new design, it features compactness, ruggedness, extreme lightweight, and is well suited for all compass positions in seagoing vessels.

White showed a complete exhibit of their Constellation compasses and binnacles, including the Constellation

Express. The 1953 model Corsair spherical compass is available with a new type card, graduated in half points, as well as the regular 5 degree card.

The SurEcho 60-fathom supersonic depth sounder was on display, along with the special remote indicator attachment. Also shown was the special depth sounder which White designed and produced for the Navy.

Wilfrid O. White & Sons have recently purchased a 37½' power cruiser, the Whitecap, which will be used in the development and testing of their latest navigational instruments and accessories. This cruiser also will serve as a permanent display of the most modern and complete nautical equipment.

Sudbury Offers Sav-A-Tank Cartridges

The Sav-A-Tank cartridge is a new product of Sudbury Laboratory for tanks holding gasoline or Diesel fuel oil. Purpose of the cartridge is to neutralize all acids and to deposit a thin, protective film on the bottom of the tank, preventing water from touching it and thereby stopping rust and sludge formation.

Sudbury Laboratory's liquid Aqua-Clear is a tasteless



Sudbury Sav-A-Tank cartridge.



BIG *Bonnie's* BATTERY NEEDS ARE FILLED BY "Giants"!

BONNIE, 101 ft. of husky, power-packed offshore trawler, owned by H. S. Trilling, fishes out of Boston for Genoa Fisheries. You can easily guess her extensive power needs. Add up all the electrical equipment "musts" that come to your mind: lighting, ship-to-shore phone, depth recorder, pumps, etc. Bonnie's outstanding battery power, "reserve", extra capacity are provided by her set of 19 Surrette GTS-15, 114 volt, 240 A.H. "Giants"!

READ THESE REASONS WHY EXPERTS SELECT SURRETTES:

- **GREATEST CAPACITY IN LEAST SPACE.** No bigger than conventional batteries. Capable of discharge many times their normal 8-hour rate without harm. Capacities to crank diesels up to 1600 H.P. 4 to 120 volts. 240 A.H. to 340 A.H.
- **EXTRA HEAVY POSITIVE PLATES.** $\frac{1}{4}$ " thick. Special REZISTOX type grid for longer life, greater strength and capacity.
- **TRIPLE INSULATION.** Dual rubber special slotted envelopes ALL AROUND positive plates, not just slotted rubber sheets. Micro-porous all-rubber separators immune to battery heat. Armored fibre glass separators to prevent loss of active material.
- **SPECIALLY ENGINEERED, SPECIAL MATERIALS FOR MARINE USE.** Extra heavy fittings, genuine hard rubber containers.

Be guided by the preference of experts. **FINEST BATTERIES AT ANY PRICE. SIZES FOR EVERY BOAT.**

Ask your dealer for specification sheet M-1 or write us.



SURRETTE STORAGE BATTERY CO., Inc.
Jefferson Avenue, Salem, Massachusetts



Surrette MARINE BATTERIES

and harmless liquid that prevents rust from forming in new water tanks and eliminates rusty water in old ones. It also stops electrolysis in closed cooling systems.

Automatic bilge cleaner lets the roll of the boat do all the work of scrubbing and cleaning the bilge. This bilge cleaner dissolves all grease, gasoline or Diesel oil and mixes it with either salt or fresh water, making an emulsion that can easily be pumped overboard. It is non-caustic, harmless to paint, fittings, etc., and its use reduces fire hazard.

Sudbury Marine Water Jacket Cleaner No. 1 is used to remove rust and Marine Water Jacket Cleaner No. 2 is for removing mineral deposits, magnesium, calcium, etc. from the water jacket and manifold of engines.

Dee-Solv is a Sudbury product for flushing outboard engines used in salt water to remove deposits of mineral salts, such as magnesium, calcium, etc. in the small water cooling passages.

Sperry Shows Automatic Steering Devices

A new form of automatic steering—the "River Pilot"—was one of the three automatic steering devices featured by Sperry Gyroscope Co. Also included were the new "triple steerer", which provides mechanical, electric or hydraulic, and automatic steering for small vessels; the magnetic compass pilot used by fishermen; and a new locator receiving unit.

The new river pilot provides the same precision steering performance as the larger standard Sperry Gyro-Pilot used aboard ocean-going vessels, but it is small enough so that the control unit can mount on a bulkhead or bracket, or attach to the side of a radar console. Although the river pilot was designed primarily for river towboats, a number of coastal ships which do considerable piloting by radar have requirements for this type of device. Principal use of the river pilot will be as a "radar pilot" on vessels requiring an automatic means for controlling the ship's heading directly from the radar console.

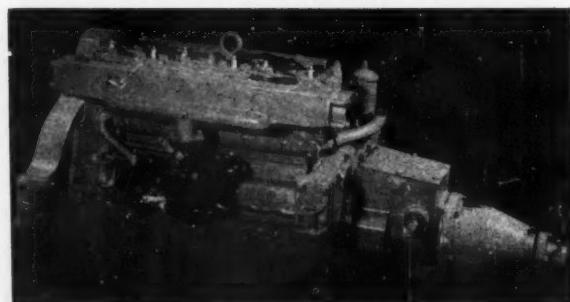
Components of the new device also will be applicable to other types of vessels as a secondary steering station for ships already equipped with the standard gyro-pilot or as the primary automatic steering station on craft which have very small wheelhouses.

Chris-Craft Line for 1953

Twenty-two marine engines, including nine different horsepower ratings and thirteen reduction drives, are offered by Chris-Craft for 1953. Advanced features of the new engines, which are designed solely for marine use, include precision cut, helical gears and heavy duty, heat-treated pistons. Coolant water is pre-tempered in the exhaust manifold to maintain ideal operating temperature in the cylinder walls.

For larger commercial boats, Chris-Craft offers marine engines with 145 and 160 hp. ratings. The 145's, which are offered as direct or with 1.5:1 and 2:1 reductions, are well suited to commercial fishing boats. The 160 hp. direct drive "W" and reduction drives of 2.5:1, 2:1 and 1.5:1 offer features that make them ideally suited for installations where peak load and throttle are required.

The model "B", 60 hp. engine is available with reduc-



Model "K" Chris-Craft engine, which develops 95 hp.



The Sign of Reliability



IT stands for an organization long experienced in the sales and servicing of the best in Marine Engines—

CATERPILLAR DIESELS

Our Sales, Parts, and Service Departments are all committed to the principle that the worth of the product it sells depends upon the service given by the seller. You can rely on PEMCO.

PERKINS-MILTON CO.

376 DORCHESTER AVE.

BOSTON 27, MASS.

TEL. SOUTH BOSTON 8-4660

tion drives of 2:1 and 3:1 for larger boats. The six-cylinder "K" series includes a direct drive engine that develops 95 hp. at 3200 rpm. Reductions of 1.5:1 and 2:1 also are offered.

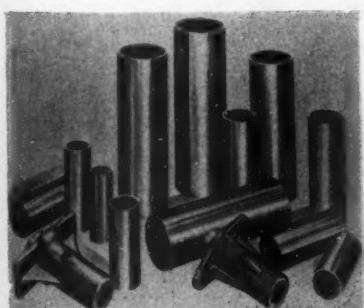
Designed to furnish a maximum of power in a minimum of space, the 105 hp. "KL" group comes with direct drive or with 1.5:1 and 2:1 reductions. The 120 hp. model KLC Chris-Craft engine measures 41" over-all and weighs only 626 lbs. The 131 hp. model KBL develops top power at 3800 rpm., and the 158 hp. MBL delivers its maximum at 3400 rpm.

The 130 hp. model "M", a six-cylinder marine engine, is offered with 1.5:1 and 2:1 reduction drives. Opposite rotation is available with most Chris-Craft engines.

Moffitt Features Goodrich Rubber Bearings

B. F. Goodrich Cutless rubber bearings, distributed nationally by Lucian Q. Moffitt, Inc., were on display. Now made of Ameripol oil-resistant rubber, the bearings

are not affected by oils, sludges and waste chemicals often found in waters where boats operate. The unique bearings, because of their rubber construction are lubricated by water and thus repel gritty, abrasive particles which cause damage to bearings of other types. New, descriptive literature was available at the exhibit.



Various sized Goodrich Cutless rubber bearings.

Bludworth Shows Electronic Equipment

Bludworth Marine exhibited their radio direction finders, radiotelephones and depthometers, including the DF-30A self-contained Port Pilot direction finder which again has been redesigned to occupy less space. The DF-1029A and the DF-1030B three band direction finders featuring the exclusive "Nuldikator" type of meter presentation were demonstrated under actual working conditions.

The depthometer with remote repeater, which was first developed by Bludworth in 1941, has been improved. The ability of the navigator to take direct readings in sunlight with this equipment is a definite advantage. A survey type portable depthometer was displayed at the Boat Show for the first time, and its capabilities fully demonstrated to those interested in underwater knowledge of bottom conditions.

Ideal Has New Electric Anchor Windlass

Ideal Windlass Company's new Model TW2CB horizontal electric anchor windlass is designed especially for small commercial vessels. It has a double gypsy unit with a single wildcat on the starboard side, and can be obtained with the wildcat on the port side or with a gypsy and wildcat on both sides.

On top of the gear case of this windlass are two 8" diameter bollards that can be used for snubbing or tying up. The all-steel welded case provides high strength at minimum weight. The capacity of this new Ideal windlass is 3,000 lbs. at 30 F.P.M.

Marine Products Displays Rubber Sealers

Marine Products, Inc. displayed and demonstrated its complete line of rubber sealers. This included its Sealer "900" for sealing leaks up to $\frac{1}{4}$ ", and Sealers "700" and "800" which are black and white heavy-duty mastic sealers for depressed deck seams, bedding compound and for

DEPENDABLE



MARINE GEARS

**preferred by fleet and boat owners
for economy in operation.**



Hydraulic



Manual



Air-operated

Designed specifically for marine engines, S-N gears have these superior features: an exclusive cone design clutch with non-metallic lining which creates less heat and gives longer life. It is a type of wet clutch which assures proper lubrication of all bearings and working parts; a balanced reverse gear train that transmits 100% of the engine's speed and power smoothly; herringbone reduction gearing that has more than ample capacity, is rigidly supported on both ends by husky bearings.

ON THE FINEST MARINE ENGINES 4 TO 1000 H.P.

SNOW-NABSTEDT

Transmission Engineers
FOR NEARLY HALF A CENTURY

THE SNOW-NABSTEDT GEAR CORP., HAMDEN, CONN.



sealing leaks up to $\frac{3}{8}$ " on larger craft. Also on display were a non-slip rubber base surfacing material known as Grit "500", for skid-proofing decks, catwalks, companionways, ramps, docks, etc., and inside bottoms of small boats.

Nordberg Introduces New Gasoline Engine

Introduction of a new 130 hp. six-cylinder gasoline marine engine highlighted Nordberg Manufacturing Company's display. The new four-cycle gasoline engine has a 4" bore and $4\frac{1}{4}$ " stroke, with a 320 cu. in. piston displacement, and develops its rated horsepower at 3000 rpm.

The exhibit also featured five other six-cylinder gasoline marine engines, including the 145 hp. Nordberg Knight, which develops its rated horsepower at 3200 rpm., the Arrow and Bluefin, 95 hp. at 3200 rpm., the Bullet, 110 hp. at 3400 rpm., and the Marlin, 110 hp. at 2500 rpm.

The 900 hp. Nordberg Supairthermal engine was one of the largest Diesel units displayed. It has six cylinders of 9" bore and $11\frac{1}{2}$ " stroke and develops its rated horsepower at 1000 rpm. With its Supairthermal system of operation, the Nordberg engine develops one-third more horsepower than a conventionally turbocharged engine of the same size.

Another feature of the Nordberg booth was a combination marine auxiliary Diesel generating unit, with Nordberg Model 4FS3-CE engine; 30 kw., 250-volt d.c., 1800 rpm. generator; 100 gpm. at 100 psi. pump; and 15 cfm. at 250 psi. air compressor; manufactured by Nap. J. Hudon of Boston.

Gray Has New Engine for Small Craft

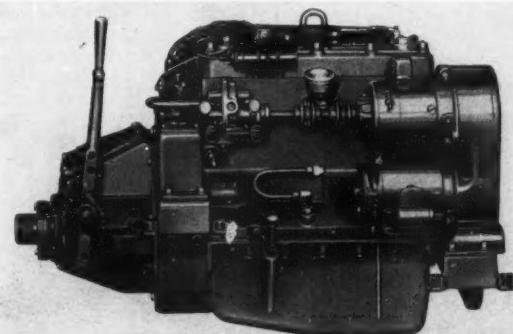
For 1953 Gray Marine Motor Co. lists 27 gasoline engines and 4 Diesel sizes, exclusive of reduction gear combinations, which range from 16 to 180 hp.

For lobster boats and similar small craft, Gray has a new 60 hp. four-cylinder engine, Model 620. Piston displacement is 140 cubic inches. A companion engine is the slightly larger Lugger Four-162, with 162 cubic inches of piston displacement, rated 42 hp. at 1800 rpm. The "Express" style of this has counterweighted crankshaft, unusual in a 4-cylinder engine. It is rated 63 hp. at 3000 rpm.

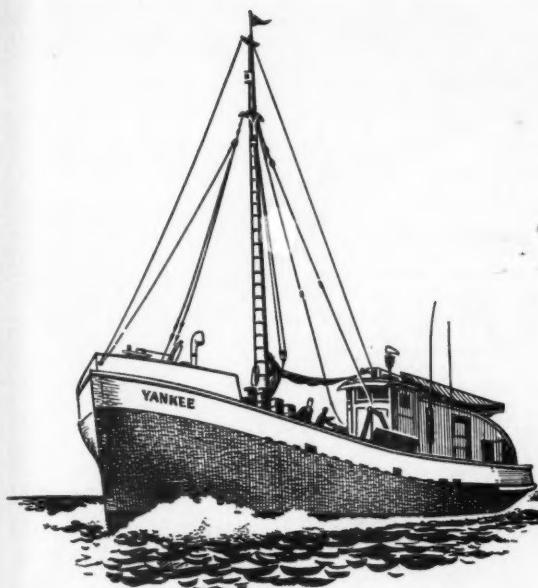
The gasoline engines which Gray supplies for heavy boats, such as are used in commercial fishing, include the Gray "Lugger Series" for maximum output at 1800-2400 rpm. in heavy-duty, slow-speed work, where economy of fuel consumption and long life are primary factors. For faster boats, Gray offers the "Express Series", rated at 3000-3200 rpm. for higher output, useful on some reduction gear combinations. Both styles have Gray's Thermogard, automatic temperature control.

For boats requiring engines in the 100 hp. range, Gray has several models, including the gasoline engine Model 100. Another model of larger piston displacement is rated 102 hp. A 100 hp. Diesel model, weighing 1525 lbs., also is offered. This is a continuous duty rating, and a governor which is built into the fuel pump assembly prevents any possibility of overloading.

All Graymarine engines are available with fresh water cooling system, and all except the smallest "Fours" are available with hydraulic reverse gear, instead of the standard manual type.



Model 620 Gray engine, rated 60 hp.



B&W Alpha

The Yankee is another fishing boat that depends on the B&W ALPHA integrated power unit, consisting of a rugged diesel engine and pilot house operated controllable pitch propeller and clutch. Captain Tony Parco says: "The power and control I now have on the Yankee is just what we have needed for dragging. The Burmeister engine and controllable pitch wheel is really the perfect unit."

BURMEISTER & WAIN AMERICAN CORPORATION
17 Battery Place, New York 4, N.Y.

Gloucester Fish Pier Extension Called for in Senate Bill

State Sen. Philip A. Graham of Hamilton has introduced a bill in the Senate to build a 560' pier with four finger piers in Gloucester and to connect it with the State Fish Pier by a roadway. Estimated cost will be some \$650,000.

A preliminary plan which has been submitted for the proposed extension calls for a roadway to start from the terminus of the present State Fish Pier, the roadway to be a slight curve to the start of the extension which would actually commence 200' from the power plant of the Dehydrating Process Co. The pier extension would be 50' wide, of wood construction with concrete deck. The finger piers would be 35' wide, spaced 140' apart, all four on the south side of the extension being 120' in length, while the finger pier at the terminus of the extension would be extended north also for 120'.

This program is in accordance with an expressed desire of local leaders in the fisheries that additional pier space be created to attend to the needs of local fishing craft requiring wharf space at which to dock after discharging their fares.

To Establish Fish Freezer

Leonard M. Weisman has bought the Gas Company property for development into a fish freezer and holding rooms. He looks for larger and more fishing boats to operate out of Gloucester as the result of the additional freezer and storage space which will be available. Weisman believes that with the fleet's expected growth, Gloucester, with boats of the capacity of the Ocean Life —450,000 lbs.—will be better able to compete with foreign fish.

Dragger Sinks at Wharf

The 104-ft. dragger *Madonna*, jointly owned by Capts. Sebastian Scola and Salvatore Aiello, sank at the wharf at the east end of Gloucester's inner harbor last month. Apparently the craft tipped over at low tide and did not right herself, as her port gallows became caught under the slip when the tide rose. Efforts will be made to raise her after necessary repairs are made.

Seek Public Landing in Bay View Section

In an effort to protect shore property in the Bay View sector for the public use of commercial and pleasure boats, a petition signed by 57 people was presented to the Municipal Council meeting last month in Gloucester. It would have the city acquire the so-called Trumbull wharf property off Washington St., Bay View, for a public landing. Fear has been expressed that private ownership could possibly deprive small boat fishermen and lobster fishermen of free use of the privileges of the property.

Cuban Studying Freezing Methods

Cesar Augusto Rodriguez of Santiago, Cuba, has recently been in Gloucester and Boston to study the freezing of fish fillets. On completion of his studies, which are supervised by the Fish & Wildlife Service, he will return to Havana where he will be attached to the first fish freezer to be built in that city. This freezer, a 2,000,000-lb. storage capacity structure, is now being erected.

Rodriguez stated that last year the total fish production of Cuba was 10 million pounds, with the bulk of the catch being pargos and cherna which are what is known in this country as groupers. The fish are caught from 65-ft. boats, with fishermen standing along the rails and using lines with hooks. One fisherman manages up to eight lines at a time.

The larger fish are filleted fresh, while the smaller ones are sold round.

Equipment and Supply Trade News

New Kaar Direction Finder Now in Production

A new model direction finder, the D-31, is now going into quantity production at the Kaar Engineering Corp. plant at Palo Alto, Calif. The new direction finder is an improved version of the Kaar Model D-24, of which more than 1500 are currently in use on fishing boats, pleasure craft and other vessels.

A number of improvements and conveniences are featured in the new design, including a built-in tuning meter and loud speaker. New circuit design has resulted in better performance in receiving weak and distant signals. The D-31 will continue to be sold through authorized dealers, along with the Kaar 50 and 100 watt radiotelephones and the Kaar ES-29 depth sounder.

Heminway & Bartlett Sets up Nylock Division

A new division of Heminway & Bartlett Mfg. Co., devoted exclusively to the sales distribution and development of Nylock, has been announced by Willard S. Heminway, president. "Sales of Nylock, 100% nylon twine bonded under our patented process, have reached such proportions that sales and distribution will be more efficient if handled directly by a division of this company, rather than through an agency," Mr. Heminway stated. "Consequently, the arrangement with Brownell & Co., who have ably represented us as sole distributor, has been terminated by mutual agreement."

"The new Nylock division will be located in our New York office at 500 Fifth Ave., while research will be carried on at our plant in Watertown, Conn. Through field representatives we expect to maintain close contact with fishermen's needs and work closely with net manufacturers."

"Several net manufacturers are now making trap nets, menhaden seines, shrimp drags, etc., out of Nylock and it is anticipated that Heminway & Bartlett's new division will assist greatly in bringing Nylock to ever widening types and sizes of netting," he concluded.

Dempsey Rejoins Columbian Rope Sales Staff

Ralph M. Dempsey has recently rejoined the Columbian Rope Company sales staff, and is working out of the Boston branch at 38 Commercial Wharf. Previously he represented Columbian Rope in California.

Dempsey started with the Columbian organization in 1939 and is well informed on the manufacture of Columbian products and the various kinds of fibres from which they are made. He worked steadily in Columbian's mills and offices at the main plant in Auburn, N. Y. until he left to join the U. S. Army Air Force, where he attained the rank of Captain. He was honorably discharged from the Air Force in 1945.



The new Kaar Model D-31 direction finder.

Detroit Diesel Creates New Sales Zones

The Detroit Diesel Engine Division of General Motors has made several additions to its field organization, and these individuals will man newly created sales zones. The new zones were formed by dividing two previously established territories into four smaller units, and this together with an increased staff will permit closer contact between the Division and its distributors in these areas.

C. J. Davy, who has been with Detroit Diesel's petroleum sales department since 1945, has been appointed sales representative of one of the new zones which includes Alabama, Georgia and Florida. R. J. Hines, formerly associated with a Detroit Diesel distributor, has been assigned in a similar capacity to Eastern New York, Eastern Pennsylvania, New Jersey, Maryland and Delaware.

J. R. Sayward, R. T. Hair, C. J. Sauer and H. S. Pillsbury, former instructors in Detroit Diesel's mobile training schools, have been added to the field service staff.

McCormick Named to Link-Belt Sales Position

Hubert J. McCormick has been appointed sales manager of the Caldwell plant of Link-Belt Co., 2410 West 18th St., Chicago. In his new position, Mr. McCormick supervises the sale of Caldwell plant products, which include overhead conveyor systems and icing and power transmission equipment.

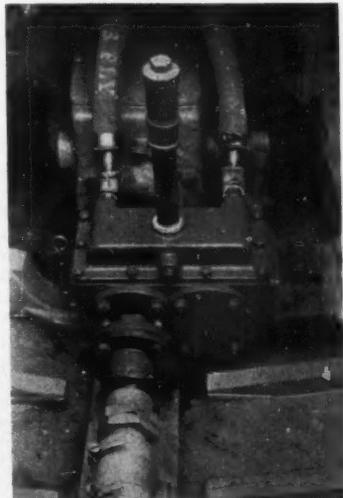
Mr. McCormick started his career with Link-Belt in 1929 as an engineer of the Caldwell plant. He transferred to plant sales in 1938. Since 1945 he has had charge of sale of conveyors and process equipment as used in manufacturing plants.

G. Walter Machine Line for 1953

Products manufactured by G. Walter Machine Co. include reduction gears, offset and in-line, reduction gear couplings, transfer drives, Clean-Flo cooling systems and propeller pullers. Walter helical gears are compact in size, light in weight for their rated horsepower capacity and fit in close quarters where space is at a premium. All gears are now available with horizontal housing as well as vertical housing.

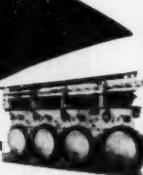
The Walter reduction gear coupling consists of a horizontal in-line reduction gear bolted directly to engine flange just like a coupling and fastened only to one side of the engine bed to keep the housing from revolving. A flexible coupling is not required, thereby reducing overall length to a minimum.

By means of a Walter transfer drive, which is made in various ratios, the boat owner can place the engine in the stern and valuable midship room is released for hold



Installation of G. Walter reduction gear coupling to engine.

**COMPLETE
FISH PROCESSING
EQUIPMENT . . .**



Retorts—quick closing doors



Conveyor type
packing tables

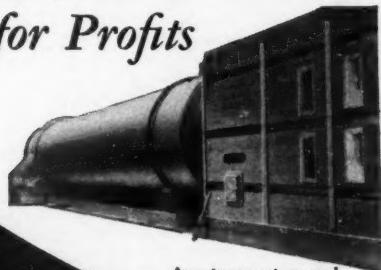
Mills and
disintegrators



Cyclones and
sacking equipment

STANDARD D-IZE

for Profits



Low temperature and
steam tube dryers

Laboratory tests show 2% to 5% protein gain, 2½% meal gain, using the revolutionary, new STANDARD Low Temperature Dryer. This is typical of the extra profits you can expect when you STANDARD-D-IZE. Standard Steel Corporation is the world's largest designer and fabricator of complete fish processing equipment. Now celebrating 50 years of service to the fish industry.

WRITE FOR COMPLETE BULLETIN



STANDARD STEEL CORPORATION

5008 Boyle Ave., Los Angeles 58

7 East 42nd St., Dept. 8, New York 17

space. Tubular drive shafts are used to provide the transfer angle.

In closed outboard cooling systems, Walter Clean-Flo Keel Coolers completely shut off the engine from the raw water in which the boat travels. Sandy and muddy water can neither grind up the circulating pump nor build up in the engine water jackets. Salt-water corrosion is completely eliminated.

Fleck Offers New Oil Log

A novel oil log, called the Re-Fleck-Tor Oil Recorder, is available on request from Fleck Engineering Co., Inc., 1631 Filbert St., Baltimore 26, Md. The new book is in loose leaf form, and contains a year's supply of spot check record sheets in duplicate so that records can be maintained ashore as well as in the engine room.

The oil recorder is arranged to provide an accurate check on the daily condition of the oil and to show when it is necessary to replace filter elements. Its use will indicate the presence of water, fuel dilution, engine trouble and overload, and tell when to change oil.

Fleck Engineering manufactures marine and industrial replacement elements for all makes of fuel and lubricating oil filters on both Diesel and gasoline engines. The laminated construction of these filter elements provides increased structural strength. It is claimed that even under several hundred pounds of end pressure, the elements will not squeeze down, sag or come apart due to filter case pressures.

The elements are composed of continuous sheets of cheesecloth and a specially treated cellulose material whose uniform density eliminates channelling, by-passing and the settling of sediment due to engine vibration. There is a perforated, rust-proof steel core which allows an unrestricted flow of oil. The filter elements are claimed to provide a natural barrier against water regardless of the amount present in the oil.

DEPENDABLE

Nautical Instruments

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BINNACLES — PELOUSES

Here is our

6" FLOAT TYPE COMPASS

Price \$49.50

complete with
Mahogany Box

Card has both
degrees and points

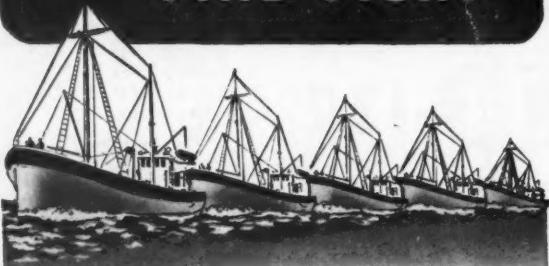


Write for descriptive folder

MARINE COMPASS CO.

Pembroke, Mass.

**HERE'S PROOF
FATHOMETERS***
(Echo Depth Sounders)
FIND FISH!



CALM
WAVE
BONNIE
WINCHESTER
MICHIGAN
WISCONSIN
THOMAS WHALAN
J. B. JUNIOR
W.M. J. O'BRIEN
TRITON
ARLINGTON
CREST
TEXAS
FLYING CLOUD
PHANTOM
RED JACKET
HILDA GARSTON
BARBARA C. ANGELL
SURGE
ATLANTIC
ESTHER M.
CAMBRIDGE
MAINE

Month after month you'll find these trawlers high on the list of landings at Boston Fish Pier. Of the 23 leaders in September, every boat is Submarine Signal FATHOMETER equipped. It's the same in other ports and for every type of fishing operation.

A Submarine Signal FATHOMETER gives you the underwater facts you need for profitable operation . . . spots the fish; shows the length, depth and density of schools; tells where and how deep to set nets or lines. Ask your authorized Raytheon Marine Dealer about the right Submarine Signal FATHOMETER for your needs or write for complete information.

Submarine Signal FATHOMETER* CADET

Indicates depths from 1 foot to 160 feet, gives true definition at 900 soundings per minute. Finds fish, locates shoals, ledges, underwater hazards. Pays for itself in safety, faster trips, bigger hauls. Transducer may be bilge mounted; no dry docking, no holes in hull.



Submarine Signal FATHOMETER* JR.
(Recording Models 1373 and 1373S)

Records contour and type of bottom on moving chart; length, density and depth of fish schools. Model 1373 with dual range 1 to 100 and 100 to 200 fathoms. Model 1373S with dual range in feet for shallow water soundings 1-200 and 200-400 feet.



Submarine Signal FATHOMETER* JR.
Indicating Model 1080C

A red light indicator that shows water depth beneath keel 240 times per minute; depth range to 600 feet — 100 fathoms; warns of shoals, reefs, hidden hazards; finds fish; facilitates bottom navigation. Simple, compact, easy to install.

*Reg. U. S. Pat. Off.



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MANUFACTURING COMPANY
EQUIPMENT SALES DIVISION
DEPT. 6270 AF WALTHAM 54, MASSACHUSETTS

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INTERNATIONAL DIVISION: 19 RECTOR ST., NEW YORK CITY



The new Plymouth Cordage Company plant at New Orleans, La.

New Plymouth Cordage Plant at New Orleans

Plymouth Cordage Company's new plant at 600 Pontchartrain Drive, Jefferson Parish, New Orleans, La., was opened with formal ceremonies last month. The plant is called one of the most modern in existence, and replaces the factory formerly operated at South Peters Street. Under the supervision of Plant Manager Paul Krueger, approximately 120 people are employed in the manufacture of rope, tying twine, binder and baler twine.

Situated on a 21-acre site eight miles west of the center of New Orleans, the plant has 150,000 square feet of floor space and in addition to the manufacturing mill the facilities include a warehouse for raw fiber and another for the finished product. A fourth section of the plant houses the machine shop, boiler room and emulsion room where chemical treatments for rope and twine are developed. Plymouth's South District Sales Office, formerly at St. Charles Avenue, is now located at the new site and continues under the management of C. H. Babington.

Plymouth Cordage can trace its family tree back to the New Orleans of 1820's ago. In the early 1820's a young and ambitious rope maker by the name of Bourne Spooner was turning out rope in New Orleans until he succumbed to the lure of Boston, then the center of the young nation's shipbuilding industry.

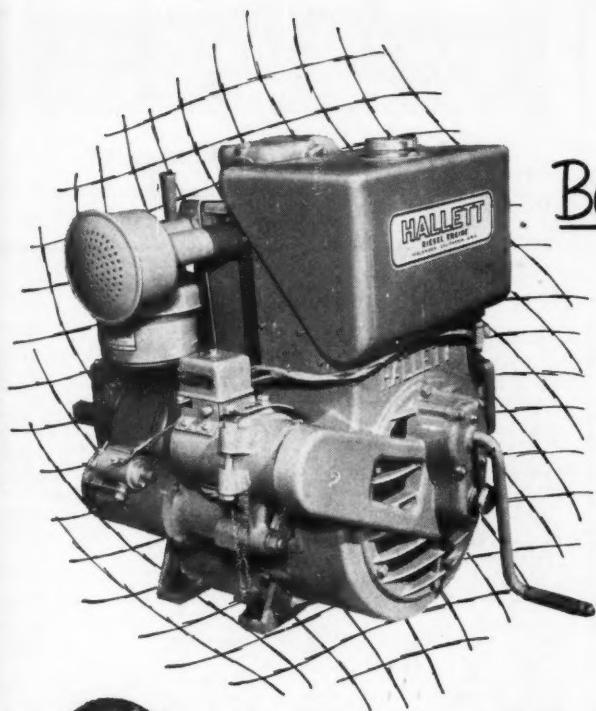
Just outside Boston, in the town of Plymouth, Bourne Spooner found an ideal location for his new ropewalk, a site on a brook that could furnish 7 horsepower and close by the important marine and fishing industries. It was there that the Plymouth Cordage Company was founded in 1824 and although it has long outgrown the 7 horsepower brook and now occupies 33 acres, the Company's main plant and executive offices have always remained in the location that Bourne Spooner selected 128 years ago.

In 1909, Plymouth began additional production of its products at Welland, Canada; in 1938 it purchased the Consumers Cordage Company which it continues to operate as a wholly-owned subsidiary in Dartmouth, Nova Scotia; in 1947 it returned to New Orleans when it purchased the Federal Fibre Mill. Plymouth's most recent acquisition was the purchase of the Virginia Cordage Corp., Petersburg, Va., in September of last year.



Charles H. Babington, left, Southern District Manager for the Plymouth Cordage Co.; at right is Paul G. Krueger, Manager of Plymouth's new plant at New Orleans, La.





Best Catch of all Seasons

HALLETT Marine Diesels

Rugged, heavy duty, lightweight, 4-cycle Hallett Diesels are preferred by fishermen everywhere. Sales and service conveniently located throughout the world.

Other Hallett Diesels to 18 HP. Write today to know more about your best catch for all seasons.



HALLETT MANUFACTURING COMPANY

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Maryland Oyster Set Low, But Bivalves Growing Well

The set on most of Maryland's oyster bars examined up to the first of this year has been low. Bars in the Potomac River, Chesapeake Bay, Choptank River and Tangier Sound were sampled through the joint efforts of the Department of Tidewater Fisheries, the Dept. of Research and Education and the Fish & Wildlife Service.

A number of seed plantings was included in the areas examined. The oysters in these plantings have shown excellent survival and growth. In the broad survey here reported, it was observed that better than average growth of oysters has occurred and the oysters generally were found in excellent condition considering the early season.

However, the observations indicate that the past season gave poorer than average set on all areas sampled. The lower Potomac bars, the eastern side of the Bay from lower Kent Island down, Hoopers Straits, and the upper half of Tangier Sound showed the best set with counts generally above 50 spat per bushel on natural cultch. The western side of the Bay and Head of Bay bars averaged fewer than five spat per bushel.

Results were good generally on those shells planted on seed areas. On Mill Hill Bar, in Eastern Bay, new shells averaged approximately 1,300 spat per bushel, the best set experienced in that area during recent years. The shells planted in Holland Straits averaged over 500 spat per bushel. The St. Marys seed area produced a little under 500 spat per bushel on new shells, a figure relatively low for that section. Shells planted on Punch Island Creek Bar caught about 200 spat per bushel.

Many Eastern Shore tributaries, some of which provide good sets annually, have not been examined as yet. These

include areas on which a number of shell plantings have been made by the Tidewater Commission to obtain sets, but which will not be transplanted.

Association Discusses Legislation

A review of possible legislation affecting the seafood industry, and the formulation of plans to present recommendations to the 1953 General Assembly, were the main topics of business at a meeting of the Kent County branch of the Maryland Watermen's Assoc. in Rock Hall last month. Plans were made to study all seafood, fish and oyster legislation to determine its effect.

C. Bradley Kerr, president of the local group, presided at the meeting and introduced representatives from other branches as well as State officials.

Austin P. Ward

Austin P. Ward, well known resident of Crisfield, died last month at the age of 61. Mr. Ward had been engaged in the seafood industry for the greater part of his life.

Smith Named Kermath Sales Manager

Clyde C. Smith has been appointed sales manager of Kermath Manufacturing Co., Detroit, Michigan. Previously, Smith was eastern district sales manager for another engine manufacturer, and brings to Kermath the benefit of his years of experience and wide acquaintance in the marine field.

Mr. Smith has announced that Higgs Marine Sales Co., 300 Zerega Ave., Bronx, New York, has been named distributor of Kermath marine engines in the metropolitan New York area. The Kermath line which the Higgs Co. will handle embraces both gasoline and Diesel engines in a range from 5 to 580 hp.



Month after month, thousands of pounds of EDERER NETTING is tagged for ports along the Atlantic, Southern Waters, and the Gulf Coast. The fact that each year sees more and more EDERER quality netting in these areas, is conclusive evidence that EDERER NETTING is tops for ocean or inland water fishing. To be sure of uniformity and strong netting—ASK FOR EDERER QUALITY WHEN YOU BUY . . .

SARDINE SEINES AND WEIR NETTING
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COTTON NETTING FOR TRAPS AND POUNDS
TWINE
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For over 65 years, EDERER QUALITY NETTING has maintained a reputation for complete satisfaction and long, trouble-free service.

Ready stocks available at our dealers in principal ports.



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GLOUCESTER - BILOXI

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BALTIMORE - MIAMI

Fish Landings

For Month of December

Hailing fares. Figure after name indicates number of trips.

GLoucester

Alden (3)	10,500	Madame X (8)	23,500
Althea (2)	21,000	Madonna De Trapani (3)	7,000
American Eagle (2)	9,500	Margie L. (6)	18,000
Ann & Marie (1)	1,000	Maria Immaculata (8)	20,600
Annie (1)	1,500	Mary (12)	38,000
Anthony & Josephine (7)	16,000	Mary & Josephine (1)	200,000
Baby Rose (1)	112,000	Mary E. (2)	2,000
Benjamin C. (1)	200,000	Mary Rose (1)	106,000
Cara Cara (2)	146,000	Mayflower (1)	3,000
Carlo & Vince (3)	22,000	Mellena II (12)	15,000
Carmela Maria (1)	1,000	Minkette 1st (9)	11,800
Catherine (1)	500	Mother Ann (1)	230,000
Catherine Amirkunt (1)	92,000	Natalie III (2)	15,000
Charlotte M. (2)	260,000	No More (1)	2,000
Chebeague (3)	7,000	Novelty (8)	14,500
Cigar Joe (3)	31,000	Ocean Life (1)	280,000
Columbia (1)	155,000	Paul Howard (1)	29,000
Curlew (1)	155,000	Peggy Bell (3)	1,400
Della Mae (1)	1,000	Pilgrim (2)	290,000
Doris F. Amero (2)	65,000	Pioneer (6)	19,000
Doris H. (2)	2,500	Puritan (2)	198,000
Estrela (2)	390,000	Richard J. Nunan (1)	7,000
Eva M. Martin (3)	4,500	Ronald & Mary Jane (1)	87,000
Eva II (2)	3,000	Rose & Lucy (3)	26,000
Falcon (5)	7,000	Rosie & Gracie (2)	21,000
Felicia (1)	220,000	Sacred Heart (8)	11,000
Florence & Lee (2)	327,000	St. Francis (4)	12,500
Frances R. (3)	18,000	St. John (5)	6,000
Gertrude E. (2)	3,000	St. Mary (11)	59,500
Golden Eagle (2)	235,000	St. Nicholas (1)	180,000
Hazel B. (1)	63,000	St. Peter (3)	38,000
Holy Family (1)	4,000	St. Providencia (12)	25,800
Holy Name (2)	12,500	Salvatore (2)	2,500
Ida & Joseph (4)	44,000	Salvatore & Grace (1)	1,500
Immaculate Conception (2)	9,500	Santina D. (1)	7,000
Jackie B. (4)	35,000	Sebastiana C. (4)	27,500
J. B. Junior (8)	43,500	Serafina N. (4)	36,000
Jennie & Julia (4)	19,000	Serafina II (6)	26,000
Johnny Baby (6)	10,500	Superior (2)	129,000
Joseph & Lucia (1)	158,000	Swallow (1)	210,000
Josephine P. II (1)	5,500	Sylvester F. Whalen (2)	345,000
Julie Ann (1)	125,000	Theresa M. Boudreau (2)	198,000
Kingfisher (2)	245,000	Trimembral (7)	11,500
Lady of Fatima (1)	87,000	Victory (1)	4,000
Linda B. (11)	47,500	Villanova (2)	475,000
Little Flower (8)	35,000	Vincent N. (3)	45,000
Lois T. (1)	3,000	Viola D. (2)	3,000
Lucy Scola (1)	2,000		

Scallop Landings (Lbs.)

Nellie-Pet (1) 9,900

NEW YORK

Alvan T. Fuller (1)	43,500	Marion & Alice (2)	110,800
Buzz & Billy (1)	20,500	Mary Ann II (1)	18,000
Dartmouth (2)	93,500	Positive (1)	24,500
Dolphin (2)	137,000	Rainbow (2)	31,100
Edith L. Boudreau (2)	78,200	St. Anthony (2)	78,000
Evelina M. Goullart (2)	116,000	St. Rita (2)	19,800
Joseph S. Mattos (2)	78,000	Tina B. (3)	135,500
Lady of Good Voyage (2)	93,600		

Scallop Landings (Lbs.)

Benjamin Bros. II (1)	5,400	Norseman (2)	7,425
Catherine C. (1)	8,100	Olive M. Williams (1)	5,850
Florence B. (1)	9,900	Reid (2)	12,816
Jenny (1)	3,150	Rockaway Belle (1)	2,925
Malice (1)	1,575	Rosalie F. (1)	6,300
Miriam A. (1)	6,750	S No. 31 (2)	17,550
		Susan (2)	13,275

WOODS HOLE

Bernice (1)	1,600	Julia K. (2)	9,900
Cap'n Bill (2)	34,900	Magellan (1)	1,600
Christine & Dan (1)	2,900	Mary M. (1)	4,300
Dolly & David (2)	5,400	Papoose (1)	1,900
Etta K. (3)	14,300	Priscilla V. (3)	29,700
Eugene H. (3)	52,900	Roann (1)	5,400
Gertrude D. (1)	2,900	R. W. Griffin, Jr. (1)	9,700
Hazel S. (1)	900	Southern Cross (2)	11,300
Irene (1)	4,500	Sunbeam (1)	8,100

Scallop Landings (Lbs.)

Amelia (1)	9,051	Pelican (1)	9,151
Liboria C. (2)	4,704	Porpoise (1)	9,538
Nancy Jane (1)	8,133	The Friars (1)	2,589

NEW BEDFORD

Adventurer (2)	21,700	Magellan (2)	33,200
Anastasia E. (1)	8,100	Martna E. Murley (3)	46,100
Annie Louise (2)	17,500	Mary & Joan (3)	89,400
Annie M. Jackson (3)	35,100	Mary J. Hayes (2)	36,000
Arnold (2)	18,200	Mary M. (1)	4,500
Arthur L. (4)	55,600	Mary Tapper (2)	35,000
Barbara (2)	22,700	Minnie V. (2)	13,200
Barbara M. (3)	37,200	Molly & Jane (2)	22,700
Bernice (1)	1,500	Nautilus (2)	95,000
Capt. Deebold (2)	32,800	Noreen (3)	96,200
Carl Henry (1)	19,000	Pauline H. (3)	115,800
Chas. E. Beckman (2)	23,100	Phyllis J. (2)	10,000
Christine & Dan (2)	16,700	Roberta Ann (1)	8,700
Dauntless (3)	36,600	Rosemarie V. (2)	10,700
Elva & Estelle (2)	11,800	Rosie II (1)	16,600
Elva L. Beal (3)	21,500	R. W. Griffin, Jr. (1)	34,000
Eugene & Rose (4)	33,900	St. Ann (3)	61,700
Felicia (3)	113,600	St. Rita (2)	6,800
Gannet (2)	63,000	Santa Cruz (4)	24,600
Gertrude D. (2)	20,400	Sea Hawk (1)	8,700
Gladys & Mary (3)	62,500	Shannon (2)	29,800
Gloria F. (2)	26,900	Skillingolee (3)	28,700
Growler (2)	34,800	S. M. Murtoza (1)	4,300
Harmony (2)	28,300	Solveig J. (3)	61,300
Hope II (4)	46,900	Sonya (1)	15,000
Huntington Sanford (3)	28,500	Southern Cross (4)	36,500
Invader (4)	83,700	Stanley B. Butler (3)	76,100
Ivanhoe (2)	21,400	Sunbeam (2)	15,200
Jacintha (2)	58,000	Susie O. Carver (1)	6,900
Joan & Ursula (3)	32,900	Teresa & Jean (2)	71,500
John G. Murley (3)	98,000	Three Pals (4)	34,300
Junojaes (3)	55,700	Two Brothers (1)	4,000
Katie D. (2)	88,000	Venture 1st (3)	62,000
Kelbarsam (2)	15,700	Victor Johnson (2)	24,900
Madeline (2)	8,200	Viking (1)	21,000
		Virginia (1)	34,000
		Whaler (3)	80,000
		Winifred M. (1)	7,200

Scallop Landings (Lbs.)

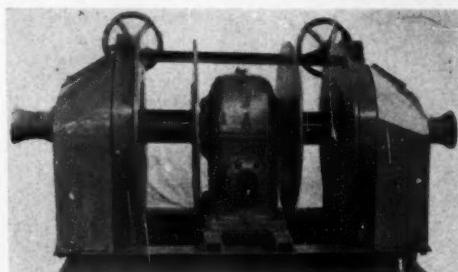
Abram H. (1)	10,150	Louise (2)	21,000
Agda (2)	7,200	Lubenray (2)	20,000
Alpar (2)	14,700		
Amelia (2)	8,300	Major J. Casey (1)	1,000
Antonina (2)	10,800	Malene & Marie (2)	21,000
B & E (2)	14,500	Maridor (1)	8,500
Bobby & Harvey (2)	24,300	Marmax (2)	19,500
Bright Star (2)	15,700	Mary Anne (2)	21,525
Camden (2)	12,000	Mary Canas (2)	9,000
Carol & Estelle (2)	24,500	Mary E. D'Eon (2)	19,900
Catherine & Mary (2)	17,300	Mary J. Landry (2)	7,400
Charles S. Ashley (2)	17,000	Mary R. Mullins (1)	10,000
Christina J. (2)	10,500	Nancy Jane (2)	15,000
Doris Gertrude (2)	19,100	Nellie & Pat (1)	11,000
Dorothy & Mary (2)	12,500	New Bedford (2)	19,500
Eleanor & Elsie (2)	12,000	Newfoundland (2)	20,250
Elizabeth N. (2)	7,700	Palestine (1)	5,500
Ethel C. (3)	20,725	Pearl Harbor (2)	21,300
Eunice-Lillian (1)	12,800	Pelican (2)	17,000
Fairhaven (2)	19,200	Porpoise (1)	10,000
Flamingo (2)	19,000	Red Start (2)	17,050
Fleetwing (2)	19,800	Ruth Moses (2)	13,050
Francis J. Manta (2)	8,500	Sea Hawk (2)	5,400
Friendship (3)	17,075	Sea Ranger (2)	21,125
Gambler (2)	9,000	Smilyn (3)	17,500
Janet & Jean (1)	6,300	Sunapee (2)	8,900
Jerry & Jimmy (2)	22,000	The Friars (1)	5,000
Josephine & Mary (2)	15,000	Ursula M. Norton (2)	25,200
Kingfisher (2)	23,300	Virginia & Joan (1)	2,700
Liboria C. (1)	4,000	Vivian Fay (2)	20,500
Linus S. Eldridge (2)	22,700	Wamautta (2)	17,600
Louis A. Thebaud (2)	14,600	Wm. D. Eldridge (2)	16,500
		Wm. H. Killigrew (2)	14,000

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The Gloucester winch has a flat friction type clutch. Extra heavy duty bearings are used in the spools and on the end bearings, to insure smooth operation. There is a 6:1 ratio reduction box in the center, and one continuous shaft runs through the entire length of the winch, providing maximum rigidity.

The Gloucester winch is made to order in all sizes from 200 to 600 fathoms of $\frac{1}{8}$ " wire capacities. Ask for full specifications.

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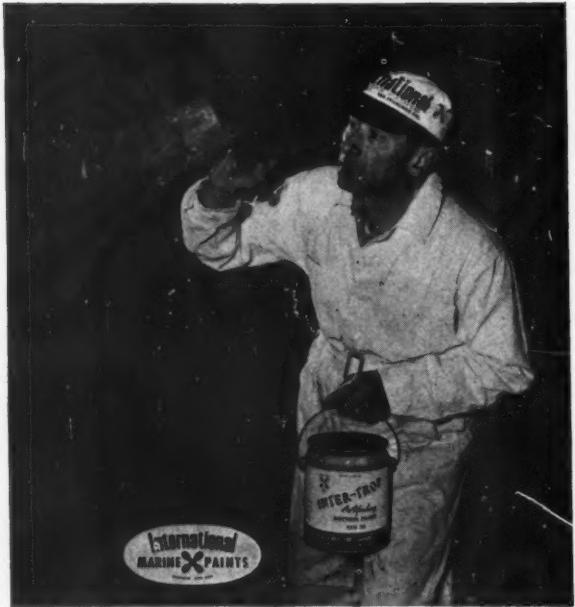


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Acme (6)	11,000	Maria Del S. (1)	1,400
Addie Mae (2)	1,900	Marietta & Mary (3)	63,500
Adventure (2)	172,000	Maris Stella (3)	124,200
Agatha & Patricia (3)	75,200	Marsala (3)	43,400
Angie & Florence (3)	62,600	Mary & Jennie (5)	12,300
Annie & Josie (4)	5,600	Mayflower (1)	2,000
Arlington (2)	249,300	M. C. Ballard (2)	97,200
Atlantic (2)	164,500	Michael F. Dinsmore (3)	109,500
Ave Maria (Dragger) (6)	12,500	Michael G. (6)	16,000
Ave Maria (O.T.) (2)	83,500	Michigan (2)	203,400
		Mother of Grace (3)	16,000
Barbara C. Angell (2)	170,300	Nancy B. (2)	37,400
Bay (3)	207,600	Natale III (1)	17,800
B. Estelle Burke (2)	58,500	Neptune (3)	227,900
Bonnie (2)	171,100		
Bonnie Lou (2)	122,700	Ohio (2)	112,500
Brookline (1)	133,000	Olympia (3)	83,200
California (3)	86,200	Olympia La Rosa (2)	56,100
Calm (3)	233,100	Pam Ann (2)	107,800
Cambridge (2)	238,000	Phantom (2)	130,500
Carmella Maria (3)	15,100	Philip & Grace (2)	108,200
Catherine B. (Dragger) (3)	52,800	Plymouth (3)	237,200
Catherine B. (L.T.) (3)	12,500	Princess (3)	12,500
Catherine T. (2)	58,000	Quincy (3)	218,000
Clipper (1)	150,000	Racer (2)	139,500
Comet (3)	216,700	Raymonde (2)	128,500
Crest (2)	185,200	Red Jacket (3)	318,000
Diana C. (3)	40,000	Richard J. Nunan (1)	13,000
Dorchester (2)	111,000	Roma (6)	24,400
Drift (3)	294,800	Rosalie D. Morse (1)	42,500
Elizabeth B. (2)	147,000	Rosie (2)	2,800
Emily H. Brown (2)	102,700	Ruski (1)	85,800
Esther M. (3)	194,100	Sacred Heart (4)	6,500
Famiglia (2)	40,800	St. Anna (4)	17,300
Flying Cloud (3)	338,900	St. Bernadette (2)	88,000
4-C-688 (3)	6,600	St. Joseph (4)	100,800
4-H-823 (4)	14,100	St. Michael (2)	5,800
4-R-630 (2)	6,200	St. Peter II (1)	60,500
Frances L. McPherson (2)	89,000	St. Victoria (1)	53,000
Gaetano S. (2)	143,400	Salvatore & Grace (1)	18,900
Helen B. (1)	23,400	San Antonio II (5)	23,500
Hilda Garston (2)	182,800	San Calogero (2)	2,300
J. B. Junior (3)	262,700	Santa Rita (4)	15,600
Joe D'Ambrosio (1)	800	Santa Rosalia (4)	14,200
Josephine F. (4)	15,200	Savoia (4)	13,900
Josephine P. II (3)	96,900	Sunlight (2)	96,900
Josie M. (1)	6,200	Surge (2)	170,600
Julie Ann (1)	66,300	Swallow (1)	52,800
Killarney (1)	125,000	Texas (2)	123,500
Leonard & Nancy (2)	81,800	Thomas Whalen (3)	215,000
Little Nancy (3)	37,600	Triton (3)	251,500
Lucky Star (2)	158,900	Wave (3)	260,700
Mabel Mae (O.T.) (2)	119,000	Weymouth (3)	224,000
Maine (2)	171,800	Winchester (2)	167,900
Margaret Marie (5)	18,400	Winthrop (3)	235,300
Maria Christina (1)	2,500	Wisconsin (2)	206,800
		Yankee (2)	85,200

PORTLAND

Agnes & Elizabeth (2)	58,300	Geraldine & Phyllis (4)	52,900
Alice M. Doughty (1)	10,100	Lawrence Scola (4)	3,900
Alice M. Doughty II (3)	54,600	Polaris (1)	60,000
Batavia (2)	470,000	Roberta D. (1)	4,200
Brighton (1)	180,000	Courier (2)	103,100
		Sea King (3)	114,500
Elinor & Jean (3)	71,200	Silver Bay (1)	175,000
Ethelina (3)	73,500	Vagabond (4)	92,300
		Vandal (1)	56,200

Scallop Landings (Lbs.)

Adele K. (1)	10,000	Monte Carlo (1)	280
Mary & Julia (1)	9,600		

STONINGTON, CONN.

America (5)	3,100	Mary A. (5)	3,800
Bette Ann (6)	3,600	Mary H. (3)	700
Carl J. (12)	7,800	Mildred & Myra (1)	4,200
Carol & Dennis (3)	4,300	New England (8)	10,800
Carolyn & Gary (12)	6,600	Old Mystic (11)	7,200
Catherine (3)	1,000	Our Gang (5)	1,800
Connie M. (10)	5,900	Portugal (5)	4,000
Fairweather (13)	18,800	Pvt. Frank Kessler (5)	20,700
Harold (6)	2,100	Ranger (4)	6,400
Irene & Walter (11)	11,800	Rita (6)	9,000
Jane Dore (7)	5,300	Russell S. (4)	15,400
Lt. Thomas Minor (10)	8,300	St. Peter (3)	900
Lindy (2)	400	Theresa (5)	22,200
Lisboa (5)	2,700	Vagabond (10)	4,100
Little Chief (4)	4,900	William B. (14)	14,100

Connecticut Growers Seek Help In Combatting Oyster Enemies

Long Island Sound oyster growers on December 3 asked Congressman Horace Seely-Brown to help them find a means of combatting predatory marine life which, they said, threatens the State's valuable oyster crop. Seely-Brown met with a group of growers and heard them describe the havoc wrought on growing oysters by starfish, crabs, and oyster drills, a type of marine snail.

The Congressman, who expects to return as a member of the House Merchant Marine and Fisheries Committee of which he was a member in the 80th Congress, said, at the end of the conference, that he favors prompt and positive action by the Federal Government in combatting the menace. He believes there is a scientific solution to the problem, and that effective results can be achieved through research.

Draggers Make Early Herring Catches

Stonington draggers found herring three weeks earlier this season than last year, and the majority of the vessels in the fleet were concentrating on these fish during December and January. The Lieut. Thomas Minor, Capt. Jack Lima, brought the first barrels of herring in on December 7, and shipped 1,800 lbs. to Fulton Market.

Landings began in earnest a week later when 60,000 lbs. were netted, and by the end of December more than 658,000 lbs. had headed for the canneries from Stonington.

To Stop Scalloping in Niantic River

Niantic River scalloping will come to a halt February 15, the joint Waterford-East Lyme commission has decided. In past years this season has been left open until April 1, although in 1951 there was no season at all. The commission kept the river closed that year because of the abundance of seed.

This past year for the first time, the commission clamped regulations on clams, limiting the daily take to half a bushel a day. Adelbert Burr, East Lyme Selectman and commission member, was appointed chief scallop warden this season.

At Stonington, Selectmen closed the inland waters January 1, but, on request of Stonington fishermen, will keep the harbor open until February 15. The Connecticut side of Little Narragansett Bay, also under jurisdiction of the Stonington Selectmen, has not been affected and is still open.

Recommends Closing Lobster Hatchery

Gov. Lodge's special committee for probing the policies and practices of the State Board of Fisheries and Game, has recommended closing the Noank lobster hatchery. Closing of the hatchery is urged in a section which recommends that artificial propagation be abandoned in favor of an attempt to build up a natural supply of wildlife.

The report also suggests elimination of the statutory provisions for marine patrol, declaring this is primarily an administrative matter.

"Carol and Dennis" Is Highliner in November

Eleven draggers of the Stonington deep-sea fishing fleet netted more than 210,000 lbs. of food fish during November, according to the Fish & Wildlife Service. Highliner was Capt. Dennis Cidale's dragger *Carol and Dennis*, which brought in about 45,400 lbs., mostly butterfish, scup and flounder. Capt. George Roderick's *Portugal* was second with 43,200 lbs.

Butterfish were found in somewhat larger quantity than usual for the late season and commanded a fairly firm price on New York's Fulton Market where the entire Stonington catch is shipped. The price ranged between 8 and 12 cents.



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A black and white photograph of a large fishing vessel, the "Columbian", sailing on the water. The boat has a prominent superstructure and a tall mast. In the background, a woman in a nautical-style dress, identified as "Miss Voncille", stands on a platform or deck of another ship, looking towards the Columbia.

We're proud to know you, "Miss Voncille", trim and smart representative of your builder (Conrad Industries) and owner (Alvah Galloway) — both of Morgan City, La.

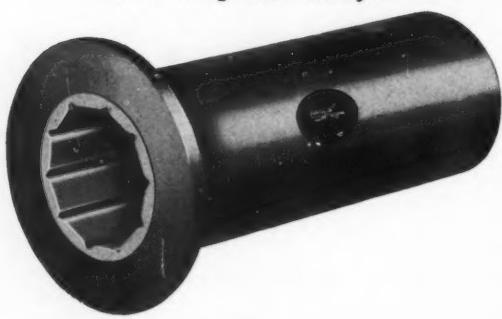
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Canadian Scallop Industry

(Continued from page 17)

that these changes in landings are not caused by the fishing effort but from changes in abundance determined by hydrographic conditions that are beyond human control. It appears that water temperatures in the Bay of Fundy during the spawning season in the late Summer can seriously affect the stocks of shellfish. The scallops taken by Digby fishermen are usually from five to seven years old—it is illegal to sell Bay of Fundy scallops whose shells are less than 4" in diameter.

The years 1940 to 1943 were cold, from a spawning standpoint, so that stocks of adult scallops in later years were low. However, there has been a steady rise in water temperatures since 1943, auguring an improvement in the fishery.

The mainstay of the Winter fleet for several years during the 1940's was the "four-mile" ground. The "hour" ground (an hour's run from the fairway buoy at Digby Gut) was first fished in the 1930's, and until 1948 was less important to the fishery than the "four-mile" ground. Since then, however, the reverse is true. The depth of the water over the "hour" ground, about 10 miles out, is 50 fathoms or more.

Size of Fleet

In the 1950-51 season the Digby fleet was made up of about 20 dragger built especially for scalloping. At one time in the 1930's, nearly 90 boats comprised the fleet, but this number since has dwindled. Other uses for the Digby scallop boats are limited, although the holds can be sealed for carrying herring from weirs to canneries in New Brunswick and Maine.

A typical Digby scalloper is a 20-ton vessel about 62' long with a beam of 15'6" and a draft of 5'. It carries two gasoline engines, each 87 hp., and is manned by the skipper; a winchman who operates the engine for towing and hoisting the drags, and two helpers.

The legal width of the Digby rig is 18', which allows for seven individual drags attached to a single steel drag bar, which can be compared to a whiffletree. The nets of these drags are made of wire rings which, by law, must be no less than 3" in diameter so that young scallops can escape through them. The rings are connected to each other by washers and when one wears out or becomes twisted or broken, it is easily replaced. The net is about eight rings deep. Its opening is a heavy frame made of angle irons, the inside measurement of which is 2'6¾" x 9". A piece of hardwood to match the frame in size is used for the bottom part of the drag, which is thus kept open as fully as possible at all times.

A gang of seven of these small drags is more efficient, on a ground which might be pitted with holes or strewn with large rocks, than one or two long ones such as are used by United States scallopers in the Atlantic.

When in operation, the lower side of the frontal frame of each drag acts as a scraper, picking up scallops from the sea bed. Each drag is connected in line to the main "spreader" bar, a swivel attachment used for the connection allowing the drags free swing. A set of chains attached to the bar at regular intervals acts as a bridle, linking the entire gang of seven to the towing warp.

Gasoline-Powered Winches Used

The towing warp runs from a gasoline-powered winch on the port side of the deck, just forward of the wheelhouse. A strong steel cable, it is carried forward through a pulley to a short boom which projects over the starboard side from the foot of the mast. The boom holds the warp clear of the side of the boat and thus, if the drags hit some obstruction on the bottom, the boat tends to swing around into the "pull", and the strain on the engines is eased.

The drags and spreader bar are laid along the starboard edge of the unrailed deck and dropped overboard in one quick operation, the winchman releasing a check rope tied to the spreader bar to let the cable run free. As the rig drops, the skipper speeds up his engines until the

drags hit the bottom, at which point the winchman locks the cable and the boat slows down to settle into the drag, which usually lasts about 20 minutes.

By feeling the tension on the towing warp, which runs alongside the boat to the stern before dropping below the surface, the skipper can usually tell when he has a catch, at which point he says "Let's air 'em," and the drags are hauled up. They are brought alongside the boat and lifted on deck by a second winch cable. Thereafter, the same cable is attached to the chains which project from the bottom of each drag, and a few turns of the drum tips the drags upside down, usually two at a time, dumping the contents on the reinforced deck.

The best ground for scallops is a firm, gravelly bed or else a sand bottom liberally strewn with shells. This has been shown not only by the results of fishing but in photographs taken with an underwater camera by investigators of the Atlantic Biological Station of the Fisheries Research Board of Canada.

Because of the difference in bottom, drags used by Prince Edward Island fishermen, while fundamentally the same as the Digby rigs, are equipped with blunt teeth which keep the frames a little clear of the ocean floor so that small objects will not clutter up the nets.

Amount of Scallops Caught

In the average Winter season, October 1 to April 30, a Digby "high-liner" makes a catch of 18,000 lbs. of scallop meats, but the average for the whole fleet is only about 12,000 lbs. per vessel.

A good day's catch, with about 25 hauls of 20 minutes each, runs between 400 and 500 lbs. of scallop meats. The biggest catches are made in the Autumn. Hauls drop during the Winter months and pick up again in the Spring.

In the early days of the Digby fishery all shucking was done ashore, but this practice has now been abandoned. For most of the year it is not necessary to carry ice aboard a scalloping vessel. As they are shucked, the scallops are placed in a large container and covered with sea water, which in the Bay of Fundy is cold enough to keep the scallop meats fresh and alive until they are taken ashore.

New Hampshire Committee Proposes Bounty on Green Crabs

A bounty of \$1 a bushel on green crabs has been proposed by a special advisory committee to the State Fish & Game Commission, in order to help build up New Hampshire's clam industry. The recommendation was contained in a report made public by Charles H. Locke of Dover, chairman of the three-man committee appointed by Gov. Adams in September, 1951, to conduct a study of dwindling clam supplies on the State's coastal flats.

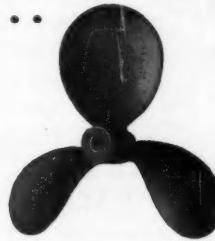
The committee also recommended that the present ban on digging clams continue for two years after the expiration of the current law on September 1, 1953, with modifications which would allow licensed persons to take up to one peck a day for personal use only in all areas except the Hampton River and its tributaries.

Other recommendations included setting up a Director of Salt Water Fisheries within the Fish & Game Commission to administer all receipts from licenses and fines and act as an advisor on salt-water fisheries; amending the present oysterling law to set a 16-year-old age limit for oyster licenses; and creating an area in the Hampton River for clam experimentation and research.

The green crab influx, which has been the major cause of the clam decline in New Hampshire, Maine and Massachusetts, started about 26 years ago. A great increase in the number of crabs has been noted since 1945, when a cycle of warm water appears to have begun.

Besides the bounty, which the committee feels will result in the destruction of large numbers of crabs, it was also recommended that wire or plastic screens and fences be erected on all flats wherever practical in order to keep out the clam's natural enemies, and that mussels be eliminated.

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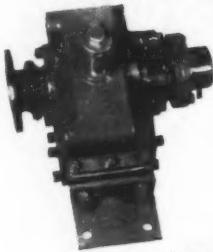
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Canadian Report

By C. A. Dixon

Good Weather Results in Fine Catches

Unprecedented weather for the time of year, so mild that the Fall was more like Spring than anything else, proved a boon to fishermen in the Bay of Fundy area, which can cut up jack in November and December as everyone knows. Usually traps and lobster gear suffer heavily during the Fall lobster season, but fishermen have had no cause for complaint in this regard during 1952.

Old-timers say that never before in their memory has fishing of all kinds been so steadily productive. It is believed that more lobsters have been caught than in any other season, and groundfish landings have been steady and satisfactory at Campobello and Grand Manan, where this branch of the fishery is followed intensively.

Excellent fares have been landed by the scallop fishermen, particularly those at Deer Island. The scallop shuckers ashore have been making good wages, and steady work has been provided for a number of men. Fishermen say that scalloping has been a godsend to them because of the almost total failure of sardine weir fishing.

Gathering Rockweed

Not all fishermen are fitted out to catch scallops or lobsters, and a number have been engaged in trapping young pollock—harbor pollock—which they sell for animal food canning at Lubec, Me. Others are engaged in gathering rockweed from the ledges and shores. This is an innovation insofar as Deer Island is concerned. The seaweed is being sold to a chemical manufacturing plant in Eastport, Me. at a reported price of \$5 a ton.

Packing Plants to Reopen

According to reports, the Canadian sardine packing plants that have been idle all Summer and Fall, including those at Deer Island, Campobello and Grand Manan, will be reopened for business early in the New Year, provided fish are plentiful enough to make operations pay. The only plant which has been operated steadily throughout the year is that of Connors Bros., Ltd. of Black's Harbor. The company has a laboratory of its own at Black's Harbor, and scientists are continually working on improved methods for the canning of not only sardines but many other canned fish products.

Seek New Floor Price for Herring

More than 20 years ago sardine fishermen of Southern New Brunswick asked for and received a fixed price per hogshead on sardine herring, namely \$10. It turned out to be one of the greatest fiascos ever recorded in the history of the sardine business. This was not the fault of the floor price, but rather that of those who would not abide by the regulation. The consequence was that the majority of the fishermen made deals with the boatmen whereby extra measure, sometimes two hogsheads for one, was given which, of course, amounted to the same thing as accepting a price lower than the floor price for their product.

Now a move to have another floor price set on sardine herring has started, but so far it is not receiving general support among the weirs. At Campobello, fishermen who operate purse seines in the Wintertime to capture sardines, fear that such would be prohibited in conjunction with a floor price. At Grand Manan some are all out for a fixed price, while others suggest steering clear of Government control and prefer to have the matter of a set price taken up with the packers themselves. Meanwhile, an attempt will be made to have the fishermen organize themselves into a union.

New Processing and Freezing Plant

Construction has begun on a million dollar processing and freezing plant in Newfoundland to increase the types

Where-to-Buy Directory

Companies whose names are starred (*) have display advertisements in this issue; see Index to Advertisers for page numbers

AIR STARTING MOTORS

Ingersoll-Rand, 11 Broadway, N. Y. 4, N. Y.

ALARM SYSTEMS

Brown Alarm Mfg. Co., Inc., 1631 Filbert St., Baltimore 26, Md.

ANCHORS

Danforth Anchors, 2121 Allston Way, Berkeley, Calif.

Northill Co., Inc., Los Angeles 45, Calif.

BATTERIES—Storage

Bowers Battery & Spark Plug Co., Reading, Penn.

"Exide": Electric Storage Battery Co., 42 South 15th Street, Philadelphia 2, Pa.

*Surrette Storage Battery Co., Salem, Mass.

BLOCKS

Madesco Tackle Block Co., Easton, Pa.

BOOTS

United States Rubber Co., Rockefeller Center, New York, N. Y.

CANS

Continental Can Co., 100 E. 42nd St., New York, N. Y.

CLOTHING

The H. M. Sawyer & Son Co., Cambridge, Mass.

A. J. Tower Co., 24 Simmons St., Boston, Mass.

United States Rubber Co., Rockefeller Center, New York, N. Y.

CLUTCHES

Newton Clutch Mfg. Co., 1 Border St., W. Newton, Mass.

COLD STORAGE

Quaker City Cold Storage Co., Philadelphia, Pa.

COMPASSES

John E. Hand & Sons Co., 243 Chestnut St., Philadelphia 6, Pa.

*Marine Compass Co., Pembroke, Mass.

E. S. Ritchie & Sons, Inc., 112 Cypress St., Brookline, Mass.

*Sperry Gyroscope Co., Division of the Sperry Corp., Great Neck, N. Y.

*Wilfrid O. White & Sons, Inc., 216 High St., Boston 10, Mass.

CORDAGE

American Manufacturing Co., Noble and West Sts., Brooklyn, N. Y.

*Columbian Rope Co., Auburn, N. Y.

The Edwin H. Titler Co., Philadelphia 24, Pa.

*New Bedford Cordage Co., 131 Court St., New Bedford, Mass.

*Plymouth Cordage Co., Plymouth, Mass.

Tubbs Cordage Co., San Francisco, Calif.

DECK PLATES

J. F. Hodgkins Co., Gardiner, Me.

DEPTH FINDERS

Bendix Aviation Corp., Pacific Div., 475 Fifth Ave., New York 17, N. Y.

*Kaar Engineering Co., Palo Alto, Calif.

*Raytheon Manufacturing Co., 138 River St., Waltham 54, Mass.

*Wilfrid O. White & Sons, Inc., 216 High St., Boston 10, Mass.

DIRECTION FINDERS

Applied Electronics Co., 1246 Folsom St., San Francisco 3, Calif.

Bludworth Marine, 92 Gold St., N. Y. 7, N. Y.

*Kaar Engineering Co., Palo Alto, Calif.

*Raytheon Manufacturing Co., 138 River St., Waltham 54, Mass.

ELECTRICAL CONVERTERS

LaMarche Mfg. Co., Wakefield 8, R. I.

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The Buda Co., Harvey, Ill.

*Burmeister & Wain American Corp., 17 Battery Place, New York 4, N. Y.

Caterpillar Tractor Co., Peoria, Ill.

*Cooper-Bessemer Corp., Mount Vernon, O. Cummins Engine Co., Columbus, Ind.

*Detroit Diesel Engine Division, General Motors Corp., Series 71 Marine Diesel, 13400 W. Outer Drive, Detroit 23, Michigan.

*Enterprise Engine & Machinery Co., 18th and Florida Sts., San Francisco 10, Calif. Fairbanks, Morse & Co., Chicago, Ill.

Gray Marine Motor Co., 646 Canton Ave., Detroit, Mich.

*Hallett Mfg. Co., 1801 West Florence Ave., Inglewood, Calif.

*P&H Diesel Engine Division, Harnischfeger Corp., 100 Lake St., Port Washington, Wis. Kermath Manufacturing Co., 5890 Commonwealth Ave., Detroit 8, Mich.

*The Lathrop Engine Co., Mystic, Conn. Walter H. Moreton Corp., 9 Commercial Ave., Cambridge 41, Mass.

Murphy Diesel Co., 5317 West Burnham St., Milwaukee, Wis.

*The National Supply Co., Engine Division, Springfield, Ohio.

*Nordberg Mfg. Co., Lincoln Bldg., 60 East 42nd St., New York 17, N. Y.

The Palmer Bros. Engine Corp., River Road, Cos Cob, Conn.

H. O. Penn Machinery Co., Inc., East River and 140th St., New York, N. Y.

*Perkins-Milton Co., 376 Dorchester Ave., South Boston 27, Mass.

Red Wing Motor Co., Red Wing, Minn.

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*Chris-Craft, Marine Engine Div., Algonac, Mich.

*Chrysler Corp., 12211 East Jefferson, Detroit, Mich.

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Kermath Manufacturing Co., 5890 Commonwealth Ave., Detroit 8, Mich.

*The Lathrop Engine Co., Mystic, Conn.

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Universal Motor Co., 436 Universal Drive, Oshkosh, Wis.

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Evinrude Motors, 4760 N. 27 St., Milwaukee 16, Wis.

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*Fleck Engineering Co., Inc., 1631 Filbert St., Baltimore 26, Md.

*Winslow Engineering Co., 4069 Hollis St., Oakland 8, Calif.

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F. J. O'Hara Trawling Co., 211 Northern Ave., Boston 10, Mass.

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Francisco 10, Calif.

*Standard Steel Corp., 5008 Boyle Ave., Los Angeles 58, Calif.

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W. E. "Bill" Francis Associates, P. O. Box 1556, Portland, Me.

J. H. Shepherd Son & Co., 1820 East Ave., Elyria, Ohio.

GENERATING SETS

*Detroit Diesel Engine Division, General Motors Corp., Series 71 Marine Diesel, 13400 W. Outer Drive, Detroit 23, Michigan.

*Hallett Mfg. Co., 1601 West Florence Ave., Inglewood, Calif.

Nap. J. Hudon, 40 Fish Pier, Boston, Mass.

GENERATORS

The Imperial Electric Co., Akron, Ohio. D. W. Onan & Sons, Inc., University Ave., S.E., Minneapolis 14, Minn.

The Safety Car Heating & Lighting Co., Inc., Marine Div., P.O. Box 904, New Haven 4, Conn.

HOOKS

O. Mustad & Son, Oslo, Norway.

"Pfeueger": Enterprise Mfg. Co., 110 Union St., Akron, Ohio.

LORAN

*Radiomarine Corp. of America, 75 Varick St., New York 13, N. Y.

*Sperry Gyroscope Co., Division of the Sperry Corp., Great Neck, N. Y.

MARINE GLUE

L. W. Ferdinand & Co., Inc., Mica Lane, Newton Lower Falls 62, Mass.

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The Safety Car Heating & Lighting Co., Inc., Marine Div., P.O. Box 904, New Haven 4, Conn.

NETS

*W. A. Augur, Inc., 35 Fulton St., New York. The Carron Net Co., 1623 Seventeenth St., Two Rivers, Wis.

*R. J. Ederer Co., 540 Orleans St., Chicago III.

The Fish Net & Twine Company, 310-312 Bergen Ave., Jersey City, N. J. W. E. "Bill" Francis Associates, P. O. Box 1556, Portland, Me.

*The Heminway & Bartlett Mfg. Co., 500 Fifth Ave., New York 36, N. Y.

The Linen Thread Co., Inc., 105 Maplewood Ave., Gloucester, Mass.

Moodus Net & Twine, Inc., Moodus, Conn. Joseph F. Shea, Inc., East Haddam, Conn. A. M. Starr Net Co., East Hampton, Conn.

OIL—Lubricating

Esso Standard Oil Co., 15 West 51st St., New York 19, N. Y.

*Gulf Oil Corp., Gulf Bldg., Pittsburgh, Pa. Socony-Vacuum Oil Co., Inc., Marine Sales Dept., 26 Broadway, New York 4, N. Y.

PANTS

Henderson & Johnson, Inc., Gloucester, Mass.

*International Paint Co., Inc., 21 West St., New York, N. Y.

*George Kirby, Jr. Paint Co., 14 Wall St., New Bedford, Mass.

Pettit Paint Co., Belleville, N. J. Pittsburgh Plate Glass Co., Pittsburgh, Pa.

*C. A. Woolsey Paint & Color Co., Inc., 229 East 42nd St., New York 17, N. Y.

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Albina Engine & Machine Wks., 2100 N. Albina Ave., Portland, Ore.

PROPELLERS

*Columbian Bronze Corp., Freeport, N. Y.

Federal Propellers, Grand Rapids, Mich.

*Hyde Windlass Co., Bath, Me.

*Michigan Wheel Co., Grand Rapids, Mich.

PROPELLER SHAFTS

The International Nickel Co., Inc., 67 Wall St., New York 5, N. Y.

PUMPS

The Edson Corp., 141 Front St., New Bedford, Mass.

Jabsco Pump Co., 2031 N. Lincoln St., Burbank, Calif.

RADAR

*Radiomarine Corp. of America, 75 Varick St., New York 13, N. Y.

*Raytheon Mfg. Co., 138 River St., Waltham 54, Mass.

RADIO TELEPHONES

Applied Electronics Co., 1246 Folsom St., San Francisco 3, Calif.

*Hudson American Corp., 25 West 43rd St., New York 18, N. Y.

*Kaar Engineering Co., Palo Alto, Calif.

*Radiomarine Corp. of America, 75 Varick St., New York 13, N. Y.

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RANGES—Golley

"Shipmate": The Stamford Foundry Co., Stamford, Conn.

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Auto Engine Works, Inc., 333 A. North Hamline Ave., St. Paul, Minn.

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Twin Disc Clutch Co., 1341 Racine St., Racine, Wis.

*G. Walter Machine Co., 84 Cambridge Ave., Jersey City 7, N. J.

RUST PREVENTIVE

*Sudbury Laboratory, Box 780, South Sudbury, Mass.

SHIPBUILDERS

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Diesel Engine Sales Co., Inc., St. Augustine, Fla.

*Liberty Dry Dock, Inc., Foot of Quay St., Brooklyn 22, N. Y.

Newbert & Wallace, Thomaston, Me.

*Frank L. Sample & Son, Inc., Boothbay Harbor, Me.

Story Marine Railway, So. Portland, Me.

Webber's Cove Boat Yard, Inc., East Blue Hill, Me.

West Haven Shipyard, 3 Water St., West Haven, Conn.

SILENCERS

John T. Love Welding Co., 31 Wharf St., Gloucester, Mass.

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The Edson Corp., 141 Front St., New Bedford, Mass.

*Sperry Gyroscope Co., Division of the Sperry Corp., Great Neck, N. Y.

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*Bodine & Dill (formerly Hettinger Engine Co.), Bridgeton, N. J.

Hathaway Machinery Co., Inc., New Bedford, Mass.

Stroudsburg Engine Works, 62 North 3rd St., Stroudsburg, Penn.

WIRE ROPE

American Steel & Wire Division, United States Steel Co., Rockefeller Bldg., 614 Superior Ave., Cleveland 13, Ohio

Bethlehem Steel Co., Bethlehem, Pa.

John A. Roebling's Sons Co., Trenton 2, N. J.

*Wickwire Spencer Steel Division of The Colorado Fuel & Iron Corp., Palmer, Mass.

New Jersey Oystermen Oppose Diverting Water

The request of the State of New York for permission to divert 800,000,000 gallons of Delaware River water daily to New York City as a source of water supply, is being opposed by New Jersey on the grounds that it would damage the oyster beds in that State. Both New York and New Jersey have a staff of experts who will testify before the Federal Court. The U. S. Fish & Wildlife Service is also conducting an impartial survey.

In the early thirties, New York requested Federal permission to take 800,000,000 gallons per day. The court ruled to reduce the removal to 440,000,000 gallons daily, as the New Jersey oyster interests opposed the plan. Since that time dams have been built which have enabled New York to obtain the amount allowed. However, the city still needs the additional 360,000,000 gallons daily, which is the difference between the original request and the amount allowed previously.

McLaughlin In New Position

John McLaughlin now is managing Quality Sea Food, a new wholesale fish distributing firm at Water and Dock Streets, Philadelphia, Pa. Wm. J. Sokoloff is proprietor of the company which will handle a complete line of frozen fillets, shrimp, lobster tails, halibut and salmon. McLaughlin has been identified with the seafood business for 20 years.

Georgia Coastal Waters Closed to Shrimping

A new law which went into effect on January 1 closes the season on taking shrimp in Georgia waters for 75 days from January 1 to March 15. For the first time, the waters are defined, for the purpose of enforcement, as extending three miles into the Atlantic Ocean.

The shrimp season ran late this year, and recent catches have been good, fishermen report. However, the January 1 start of the closed season was set because ordinarily only tiny shrimp remain in Georgia coastal waters on that date.

Fisheries biologist W. W. Anderson explained that the closed season is intended primarily to increase the poundage catch when shrimp resumes in the Spring. Anderson said shrimp don't spawn until warmer weather, but that the closed season will make more of them available to spawn.

His survey for the Fish & Wildlife Service shows that South Atlantic coast shrimp large enough to be of value to fishermen migrate south as cold weather comes on.

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